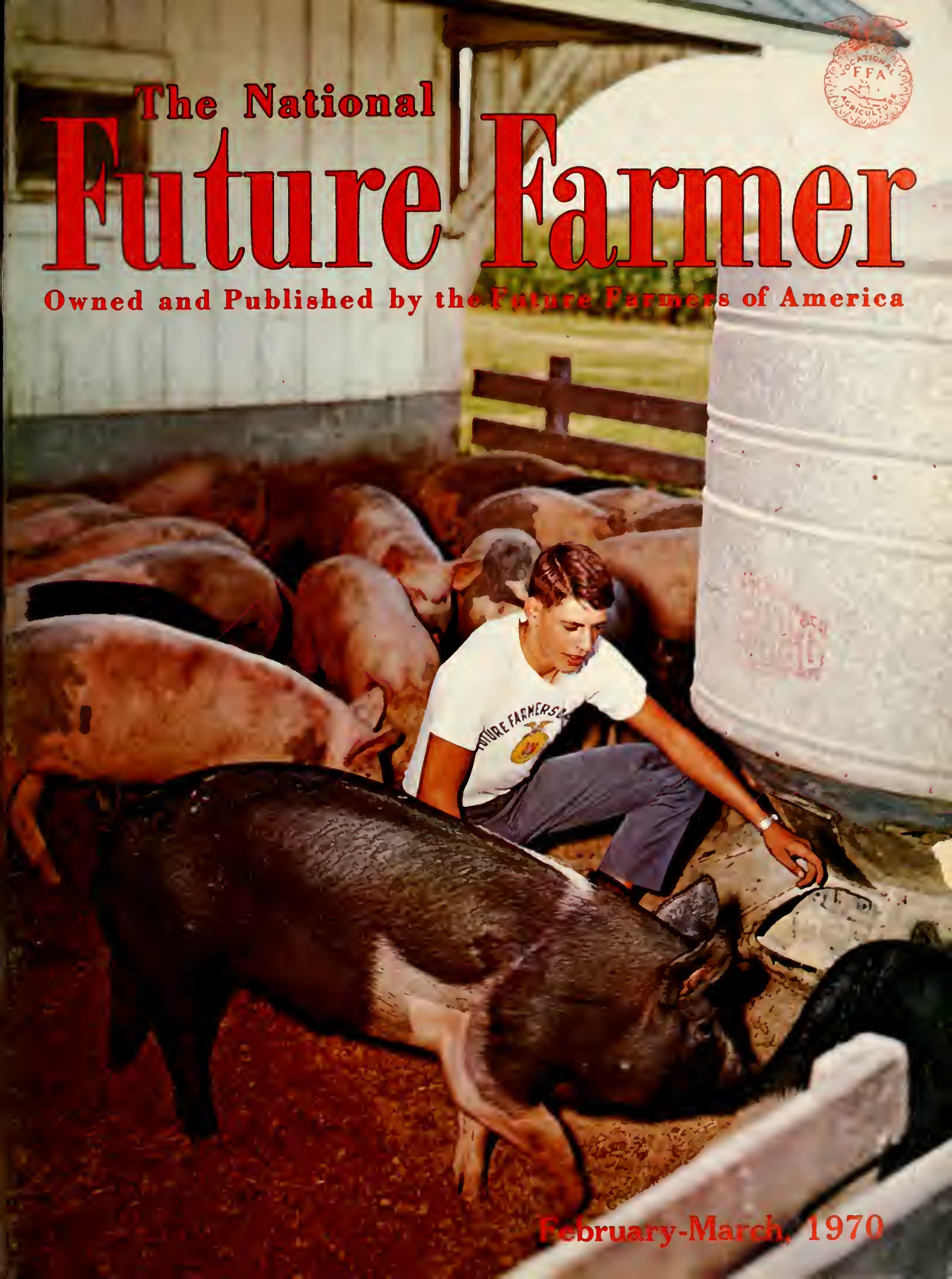

The National Future Farmer

Owned and Published by the Future Farmers of America

February-March, 1970

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The National
Future Farmer

VOLUME 18 NUMBER 3 FEBRUARY-MARCH, 1970

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Agri-Emphasis: Livestock

"Automated" Milking 18

This article about a new automatic release milking machine is just one of the many livestock features in this new special emphasis section. Others deal with some new developments and techniques in beef, swine, poultry, and horses, in addition to dairy. The Agri-Emphasis section (which will concentrate on crops in the next issue) begins with "Expanding Efficiency" on page 14 and includes the following articles:

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Here Comes A Leader 8

Becoming a leader can take in many different experiences. A leader can also take many different avenues to success. This is the case of your new National President Harry Birdwell of Oklahoma. Read about his many and varied experiences both in and out of FFA. His achievements and failures can be a real inspiration to you as you strive to be a success.

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Our Cover

Shown here in a concrete feedlot is E. J. Crall who markets over 300 hogs per year. He uses an old, remodeled barn and has mechanized his operation to the extent that he can handle the entire production setup on his own.

He is a member of the Oak Harbor FFA Chapter of Ohio where Mr. Larry Heintz is advisor.

Photo by Ralph Woodin

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Looking Ahead

Livestock

BROILER MARKETINGS—Broiler production in the United States will continue to expand this year, continuing a pattern which began in 1946. According to a University of Wisconsin agricultural economist, broiler marketings for 1969 exceeded year-earlier levels by about 7 percent. The number of broilers produced exceeds 2.7 billion—more than 13 broilers per person—with consumer demand expected to remain strong. Although broiler prices for 1970 are expected to average below 1968 levels, they should remain high enough to encourage further expansion in broiler production.

NEW PREMIX—Elanco Products Company scientists have found a way to stabilize the diethylstilbestrol (DES) molecule and improve its availability by 20 percent when fed to ruminants. Although crystalline DES exists in one form, researchers found that under certain conditions, as in premixes or feeds, that DES exists in two forms—*trans* isomer, the more active form, and *cis* isomer, the less active form. Normally, after conversion the molecular content of DES is usually about 70 percent *trans* isomer DES and 30 percent *cis* isomer DES. With a stabilization process Elanco has formulated a premix, High-Trans Stilbosol, containing 90 percent of the active *trans* isomer DES.

MILK PRODUCTION—United States milk production for 1969 was down 1 percent from 1968. And since the peak production of 127 billion pounds in 1964, annual milk output has dropped almost 10 billion pounds—or about two percent per year. The main reason for this decrease, say University of Arizona dairy scientists, lies in the fact that cow numbers have fallen 16.9 percent over that same five year period making the nation's dairy herd the smallest since 1887. Fortunately, say North Carolina State economists, production per cow increased by 1.5 percent over last year, and will continue to rise, thus offsetting part of the drop in milk production.

BEEF DEMAND—Although beef cattle numbers are up 15 percent and cow numbers are 3 percent more than in 1954, beef and veal output totaled a record 21.6 billion pounds last year—a 5 percent increase over the last 15 years. The USDA Economics Research Service expects both trends to continue. They point out that structural changes in the beef industry over the past decade and a half—made to meet a strong demand for beef—are responsible for the high output.

Crops

BARLEY PROGRAM—The minimum diversion of barley for participation in the 1970 program will be 20 percent of a farm's base acreage—or the same as in 1969. Malting barley is again included in the program because supplies are adequate. However, producers may substitute wheat for oat-rye, but must divert 20 percent of their oat-rye base. Diversion requirements under this provision are 15 percent under last year's program.

PESTICIDE REGULATIONS—Secretary of Agriculture Clifford Hardin has directed that the regulations governing the registration of pesticides be more responsive to the findings of pesticide effects and be related to public concern of environmental pollution. He also took action to cancel registration of DDT for use in aquatic areas, homes, gardens, and on shade trees—in other words virtually all non-agricultural uses, or one-third of all DDT now used. The registration of DDT for use against tobacco pests was also included in the measure. Of the DDT used for agricultural purposes—about two-thirds—three-fourths is applied on cotton acreage. However, Secretary Hardin announced the intention of cancelling the registration of DDT for all purposes by the end of 1970.

FERTILIZER ORGANIZATION—A new fertilizer organization has been formed called The Fertilizer Institute. The organization was a result of a merger of two fertilizer organizations, National Plant Food Institute and Agricultural Nitrogen Institute. A third association, The National Fertilizer Solutions Association, failed to adopt and join the merger. Organization leaders believe by combining all segments of the fertilizer industry they can better cope with new problems and developments while representing all segments of the industry. The Fertilizer Institute will be based in Washington, D.C. 20006 at 1700 K Street, N.W.

Management

FARM PARTNERSHIP—Once established, a farm partnership should be reviewed and check at least once annually, say Penn State farm specialists. First, to see how well each of the partners are meeting their obligations. Second, to carefully evaluate the agreement to see that it is doing its intended job. Now, at the beginning of the year, is a good time to check out this agreement.

FARM INCOME—Gross farm income went up in 1969, but so did farm costs, holding net farm income to an increase of $1.5 billion for the year. And more of the same is in sight for 1970, but with little chance of much increase in net farm income. With the exception of interest costs holding about the same, say Southern farm management economists, other production costs such as taxes, labor, livestock, and land will continue to climb.

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North Lawrence, New York

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A Word with the Editor

SOMETHING new has been added to your magazine beginning with this issue. It's the Agri-Emphasis section which you can look forward to receiving with your copy of future issues. The aim is to single out some agricultural topic of special interest to FFA members and give the subject special treatment with a few timely articles. This issue the Agri-Emphasis subject is "Livestock." Next issue, the subject is "Crops." The issue after that, the subject will be "Land and Recreation." You will find more information about the articles for this issue's Agri-Emphasis section on the contents page.

New National Officer

Charles Postles, Jr.

The national officer team has a new national vice president from the North Atlantic Region. He is Charles S. Postles, Jr., of Milford, Delaware, whom you will probably remember as one of the Regional Star Agri-Businessmen named at the recent National FFA Convention. Charles replaces Don Shinn of New Jersey, who resigned because of personal reasons which he felt would make it impossible for him to adequately fulfill the duties of his office.

Charles lives on a farm near Milford, Delaware, and is a member of the Misipillion FFA Chapter. In addition to chapter offices, he has served as vice president and president of the Delaware FFA Association. At the time of his election, Charles was attending the University of Delaware.

Goodwill Tour

Your national FFA officers arrive on the Washington, D. C. scene in early January to complete last minute preparations for their annual Goodwill Tour and to further prepare for their year's work. Their first visit was with the Secretary of Agriculture, the Honorable Clifford Hardin, on January 12, where they discussed plans for a joint FFA-Farmers Home Administration program on community development. They also made short trips to Baltimore and Richmond where they met with businessmen and government representatives.

The Goodwill Tour will officially begin on January 26, at Raleigh, North Carolina. From there, the officers will travel to several other states including South Carolina, Georgia, Tennessee, California, Kansas, Missouri, Illinois, Ohio, Colorado, and New York.

This is the 23rd Goodwill Tour taken by the national officers. Its purpose is to help bring about a better understanding of the FFA. In addition, it is an opportunity for the FFA officers to meet and exchange ideas with leaders of business, industry, and national organizations interested in agriculture.

Throughout the tour the officers will promote this year's FFA WEEK theme: "FFA . . . emphasis agriculture." The officers will also have an opportunity to thank contributors to the FFA Foundation, Inc. The tour will end on February 27, during National FFA WEEK.

Wilson Carnes
Editor

Where do they come from?

The men of the United States Army. The men who help stand guard and keep watch to protect our 200,000,000 freedoms.

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2NFF 2-70

During FFA Week 1969 Harry appeared on television as guest of KWTV Farm Director Bill Hare, right, with State FFA Advisor Byrle Killian. Recently, as National President, he was on the Brad Lacy Show, WBBH, Fort Myers, Florida.

Here Comes A Leader!

By Ron Miller

"I WASN'T really sure that I belonged in FFA. I was afraid my beginning in farming was too small, and I counted eight other Greenhands in my class with larger programs. I just drifted through my first year in FFA. I failed to be elected to a junior office, one of my steers died, I missed qualifying for the livestock judging team, and did not enter public speaking contests."

But, as a sophomore, this story changed drastically. Advisor Bill Hasenbeck told this Fletcher, Oklahoma, member to "get in or out of FFA." "From then on," says Harry Birdwell, "FFA was a challenge as I began to realize that I would never have the largest farming program. However, other areas in FFA gained special interest with me—namely public speaking and leadership activities." The result is evident as Harry is now serving as your National FFA President.

Harry took part in these activities with desire and zeal. Starting out by participating in chapter events, he soon became chapter photographer. This responsibility included shooting pictures whenever Fletcher FFA members showed at fairs, received recognition in contests, besides photos of regular meetings and recreational and civic events.

Speaking soon became one of Harry's major interests. From a beginning as master of ceremonies for chapter and district conferences, announcer at the local stock show, and tour guide in Children's Barnyard exhibits, Harry moved to bigger quests. He won Oklahoma's speaking contest, the Tri-state contest, and placed second in the Southern Region contest. He won several other county and state speaking awards, placed first in many livestock judging contests and helped Fletcher become a Gold Emblem chapter. As chapter vice president and vice president and president of his state association, he spoke at over 15 leadership conferences and 42 chapter banquets.

The young leader gained prominence and respect for his leadership work. John Jones, Oklahoma's Southwest District Supervisor, says, "In my opinion, Harry is one of Oklahoma's top young leaders. He served with desire and won the admiration of those he worked with. He is an excellent speaker and can inspire other young men to become leaders."

Harry's involvement in high school brought out more leadership qualities. He made all-conference and alternate all-state basketball teams, leading his team with a 25.4 point average. He also earned all-conference recognition in baseball. On top of that he was salutatorian of his junior high class and gained the same honor in senior high with a 3.94 grade point average.

Both as a sophomore and as a senior Harry served as class president and on the student council. He was, in addition, an outstanding journalist, working as assistant editor, editor, and sportswriter for the yearbook. Other activities which interested this versatile young man included singing in chorus and a sextet. He also plays guitar, directs singing and speaks in church, and collect coins. The coin collection, incidentally, has been appraised at $1,000.

College has offered Harry even bigger possibilities. He's made the dean's honor roll every semester at Oklahoma State University and belongs to three

Here Harry does the play-by-play of an Oklahoma State University basketball game. He works the baseball season and is a color commentator for football.

Jim Weems Photo

Dan Reuwee Photo

On a three-day whirlwind tour through Florida the National President met over 500 members from 43 chapters.

Poul Newlin Photo

The bermuda and wheat pasture that Harry's father, left, Advisor Bill Hasenbeck, and Harry are looking at was a result of Harry's conservation practices.

honor fraternities. He is also a member of an agricultural fraternity, served on the college president's council and executive board, won a Top Ten Freshman award, and assisted on Oklahoma's Selective Service Youth Advisory Council. As a Junior, majoring in agricultural broadcasting, Harry works as a sportscaster of Oklahoma State athletic events on KOSU and KVRO radio stations.

But, what of Harry's farming program, the initial concern of this young leader? It is well managed and steadily increasing, say Advisor Hasenbeck and Supervisor Jones. He has used conservation practices to increase carrying capacity of pasture and herd size.

Starting with only three steers, this town member has raised his beef output to over 20 steers annually and has established a breeding herd of 11 cows. Just a couple of months ago he purchased 20 head of 400-500 pound calves. It was for this growth in farming that his fellow chapter members chose him as their outstanding town FFA member.

Harry works the family-owned 80 acres with his father, Mr. Walter Birdwell, fuel and oil farm distributor, and Daryl, his older brother who also attends college. They utilize all the land as pasture—growing midland bermuda grass for summer feed and sowing wheat in the bermuda grass for spring and fall pasture. Even though southwest Oklahoma is usually dry, the Birdwells have solved their water problem by building a small lake. Dug three years ago in conjunction with the conservation service, the lake provides water for stock and will soon provide irrigation water and become part of a recreation facility.

Harry rents another 40 acres of grassland pasture on half with Dr. Mel Welch, a local physician, where each pasture a matching number of their own stock. They share feed expenses but separate their stock after the pasture season.

Harry earns additional money working on the farm and making fuel deliveries to farmers for his father and does commercial lawn mowing. Although he invests a portion of his earnings back into his farming program, he uses much to pay for his college education.

"Looking back," remembers Harry, "it's very important that Future Farmers learn to live with their limitations. Failure to achieve goals bothers me, but discipline and past successes have helped me pick myself up again." Gaining the top office of leadership in the FFA just illustrates how high a goal one can reach, no matter how you begin. It's all up to you—as Harry Birdwell, the National FFA President, has proven.

Harry and his father look over the new calves shortly after unloading them.

Poul Newlin Photo

FFA WEEK

FFA WEEK is a good time to show your colors and tell the community about your chapter's activities. The theme for FFA WEEK in 1970 is "FFA . . . emphasis agriculture." The National Organization has developed special promotional materials to help you make this FFA WEEK the best ever. But, the job of promoting and telling about your chapter's activities is up to you.

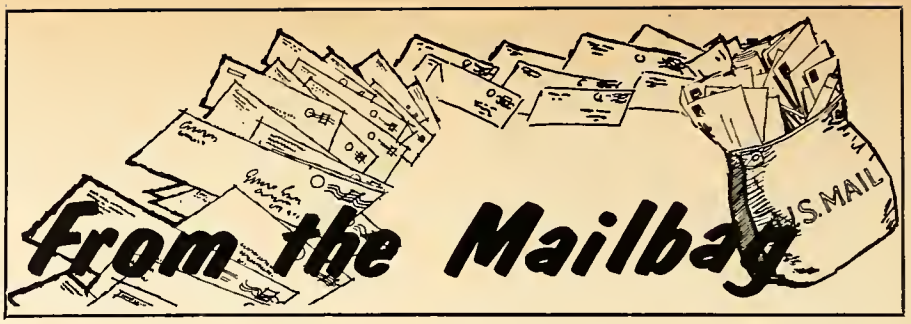
This year's theme will help you tell the story of the FFA and vocational agriculture's role in modern agriculture. For years the vocational agricultural program has placed almost total emphasis on production agricultural enterprises. Today, while the vo-ag program fully recognizes the importance of agricultural production, it also is training for off-the-farm jobs in agribusiness. These are the men who will play important roles in the marketing, processing, and distribution of farm products and supplies.

By emphasizing the broad spectrum of agriculture the vo-ag program is helping assure that its youth will continue to have good jobs in agriculture.

The success of FFA WEEK depends on careful planning. Chapters should select their committees early and start making detailed arrangements for FFA WEEK activities. Have a plan for each day of the WEEK. Divide the responsibilities among several committees.

Typical activities that have worked for other chapters are included in a "How-to-use-it and Idea Packet" which was mailed to all chapters. This packet includes suggestions on how to get maximum use from print and broadcast media. It elaborates on using the FFA WEEK materials to their full advantage; and it lists resource ideas.

Remember, every week is an FFA WEEK. The activities of February 21-28 serve as a "kickoff" for year 'round promoting of the FFA program. Hopefully your chapter will continue all year.



New Brunswick, New Jersey

The National FUTURE FARMER over the years has been of considerable support to vocational educators in agriculture in many ways. The Agri-OPPORTUNITIES section of the December-January 1969-70 issue is terrific. It has caused me to direct this letter of appreciation to you which should have been done years ago. The December-January issue will be difficult to top.

The quality and relevance of the articles are appreciated. Thanks for a consistently great magazine.

Charles C. Drawbaugh
Associate Professor of Education
Rutgers University

Aibonito, Puerto Rico

I am now 22 years old and was an FFA member for three years and president of my chapter the last one, located at Jose C. Barbosa School Bo. Asomante, Aibonito, Puerto Rico 00609.

A few years ago the vocational agriculture class in the school was eliminated instead of being improved. That was not the first and surely not the last one. Really, I can't understand our government's desire for the agriculture improvement and strengthening if the agriculture schools are being closed. It's like cutting the apple tree; no tree . . . no apples; no schools . . . no good and well prepared young farmers to replace the old, tired, and retired ones.

Please send me the FFA Magazine.

Jorge Luis Gonzalez Rios

Thanks for your continued interest in FFA. You can receive the magazine even though you are not now a member. The price is $.75 for one year or three years for $2.00.—Ed.

Petaluma, California

The Petaluma Chapter was chartered in 1929 as the 20th chapter in California and would like to compare its record with others.

The chapter has produced 18 American Farmers with the most recent being Don Silacci who will receive his gold key this year. Mr. William King, who was a Petaluma American Farmer in 1959, is presently teaching agriculture mechanics at his Alma Mater.

The gold emblem of the State Farmer degree has been awarded to 144 Petaluma Future Farmers. Last year eight of the chapter members attained the degree.

In the past 40 years there have been numerous Star State Farmers from this North Coast chapter, including Mr. George Nicholas who was the first California FFA member to receive the award.

We would like to know how many chapters can top this record.

FFA Chapter Member

Atwater, Ohio

Since the Waterloo Chapter is newly organized, I am requesting the information kit available to our local chapter about the FFA calendar program.

Byron Whittlesey

The 1971 Calendar Kits will be out in early 1970. Watch for the announcement. —Ed.

Americus, Georgia

This is my first year in agriculture and FFA. I never knew it was so much fun being an FFA member. I have made you people go to lots of trouble sending me "Free or You" materials. I really do appreciate it.

I hope I can go to Kansas City next year. I am trying very hard for points.

LeRoy Allen

Shepherdsville, Kentucky

We are inquiring about the Parliamentary Procedure section. We use this section as a class reference, and are concerned about its omission in the last two issues. We would very much like to see this section included in future issues.

Johnnie Crump

Good to know you like the feature. You will continue to receive it in most issues, though it is left out occasionally because of limited space.—Ed.

Radnor, Ohio

Enclosed is a mailing strip and a check for $3.75. Please extend the subscription for "Ken Cole" for five (5) years.

This is one magazine that is read from cover to cover by all members of our family.

Ken received his American Farmer degree in October, and I thought an extension of his Future Farmer magazine subscription would be an appropriate Christmas gift.

Mrs. Wilson Cole

Weimar, Texas

There are several things I like about the FFA magazine. Naturally, it gives hours of reading pleasure, but it has benefitted me in even a greater way. The articles you have printed about other FFA members, especially state and national officers, have been a great inspiration. Hearing about the lives of my fellow members has done more to inspire me to work hard than any other thing I can think of.

I am sure that there are many other boys who could have told you the same thing I have said about myself. I would like to thank you for writing these articles because they stimulate a person to set high goals.

Albert Kuehn

Don Gaines is a scrambler.

Don Gaines believes in getting to the top fast. Whether it's a hill or a career.

At Michigan State University, where he is a senior and a psychology major, Gaines makes the most of his time. He takes Army ROTC. He keeps his marks well above average. And five days a week, from 4 p.m. to 2:30 a.m., he works on a nearby automobile assembly line.

Gaines says ROTC rounds out his education. He learns to lead and motivate others.

When he graduates, he'll fulfill his military obligation as an officer. Stay in the Army? He's not sure. But he knows his management experience as an officer will give him an edge in any career of his choice.

The real campus leaders are in Army ROTC. The guys who like to get out in front. Why not join them? For the details on Army ROTC, fill out and mail the coupon.

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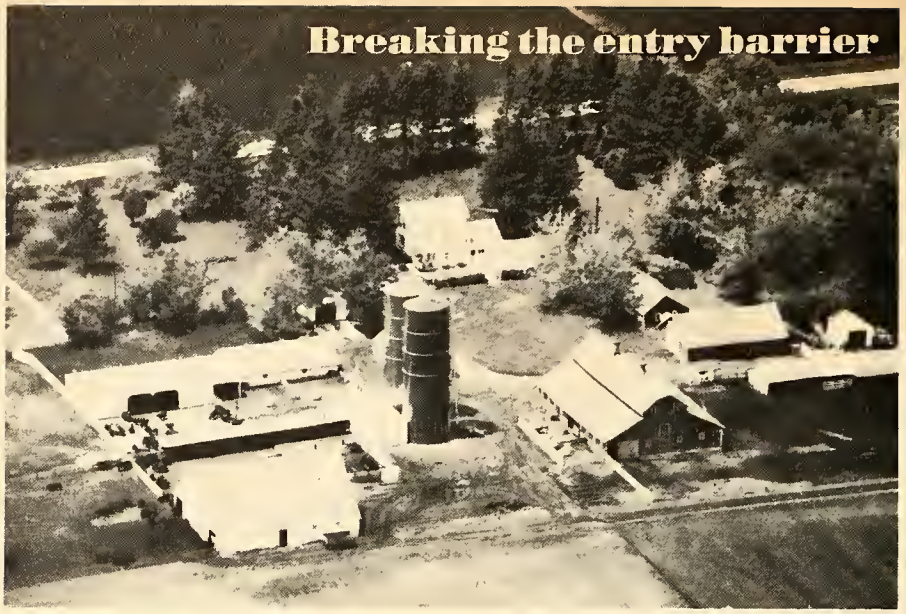

Protect Your Entry

If you want to farm, here's a way to assure that future.

By Ron Miller

WHEN breaking the entry barrier into farming, or any other agribusiness, for that matter, it's only realistic to protect what you've gained. But, this doesn't just mean insurance; protection also means drawing up a will.

What's the purpose of a will? Although laws vary from state to state, in general they provide a distributive share of the farm to survivors and descendents. In as much, such distribution may not be what you or your father, as owners or partners, intended. Therefore, a will is necessary to change the way property would ordinarily be distributed by law.

When a father and son operate a farm together in corporation or partnership, they want to make sure the son can continue running the farm with little difficulty. The son wants assurance of a future interest in the farm and the father desires to provide his farm-operating son with this opportunity. They also wish to avoid friction among heirs and treat other family members fairly.

Granted, its especially good that your father have a will, but don't discount the idea for yourself. If you control a sizable amount of property or capital and are approaching the legal age in most states of 21 for drawing up a will, it's not too early to think about a will of your own. It may seem like a morbid task, but making out a will shows foresight and avoids difficulty for the rest of the family. A properly drawn will can make farming adjustments for the survivors of father-son operations and young farm families much easier.

A single man operating on his own should have a will so that he can determine who will receive the farm. He can designate, as is the case with all wills, a personal representative or executor to see that his wishes are carried out. If he is in partnership with his father a will can also facilitate a transition to another type of arrangement should something happen to the son.

If you are married, you may wish to make your wife sole owner of the farm, or your share, as it would make it easier for her to liquidate or keep the farm. Arnon Allen, a law professor with the University of Wisconsin Extension, cites an example of a young farm family with minor children. If the farmer did not have a will to make his intentions known, the law would require his widow to post a surety bond and make annual reports to the court. Unless permission is granted, she would then have to preserve a child's share until they reach 21. A will can also guide probates judges in appointing a guardian for the children if both parents should die in the same accident.

Always contact a lawyer to make a will. He can insure that your will meets the requirements of your state as well as your situation. If a will does not satisfy the laws of your state, the distribution of the estate will still be done according to the state's laws of descent.

The following three devices, prepared by the Southern Farm Management Extension Committee, can be used in drawing up a proper will. They are directed toward a father-son farming operation. However, similar devices can be used by single or married farmers and agribusinessmen and are often merged in a satisfactory will.

- Parents may wish to leave, or devise, the farm to the farm-operating son on condition that he make specific payments to the other heirs. These payments, however, should reflect the farm improvements and contributions made by the son in addition to representing an equitable share for the other heirs. Reasons—support of parents, capital for farm construction, and helping pay for the farm mortgage—for the son being willed a seemingly larger portion should be stated in the will to reduce misunderstanding. In addition, since a will can be changed or destroyed, these provisions should be agreed upon and documented with a written contract between the son and his father. Usually, a specific time period is set for the payments, and in some instances an interest rate is specified.
- The will may provide the farm-operating son with the first option to buy the farm at a specific price. For this right the son generally has a certain amount of time in which to make the necessary financial arrangements.
- Another method is to devise the farm to the farm-operating son and provide for the other heirs by means of personal and nonfarm property. If several heirs are involved this method requires large amounts of property for equalizing inheritances. Thus, this method is most often used when there is only one heir, or when the son has supported his parents for a number of years. If the farm is large enough to divide, the parents could give the son full interest to part of the land and buildings.

No matter what business or family situation you are in, a properly drawn will can prove beneficial to all concerned.

But, don't forget, marriage, children, death, crippling accidents, and a change in your economic condition creates a new family situation. Therefore, once you have a will, update it as important changes occur, and review it at regular intervals with your lawyer. A proper will can really protect your entry into farming.

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EXPANDING EFFICIENCY

This dairyman combined good practices with labor efficiency to increase his herd.

By Ron Miller

Roy Knudsen Photos

Efficiency is the word with Helmut. His four-section corral setup makes cleaning the loafing areas an easy chore.

FEEDING and breeding practices get special attention in Helmut Teichert's Sun River, Montana, dairy operation.

The dairyman feeds a pellet ration of not less than 15 percent crude protein and not more than 8 percent crude fiber to milking and dry cows in varying amounts. In addition, Helmut feeds high quality hay containing 16 percent crude protein in place of pasture.

Originally, when the former native of Herford, West Germany, came to America with his parents in 1956 and moved to the 160-acre Montana farm a year later, he found pasture to be inadequate for high milk production. The farm had 45 acres of dry cropland and only 45 acres of irrigated land, with the rest being wasteland. He and his father leveled 83 acres and built more drainage ditches. Then, by installing a 20-horsepower pump, they increased their irrigated hay land to 100 acres.

They harvest hay for the cows with a swather and baler, but chop some for calves. They also grow barley for calf feed on the remaining ten acres of dry cropland.

Helmut, the 1969 National Dairy Proficiency winner, uses production potential and herd improvement records to evaluate and cull cows and heifers. He also breeds all of his cattle artificially. Although his herd average dropped some in 1968 when he purchased 59 more cows—including 20 first calf heifers—his herd is now back to about 14,000 pounds of milk and 550 pounds of butterfat. The former Montana Star Farmer started with averages of around 12,000 pounds of milk and 440 pounds of fat.

Under the guidance of Advisor Roy Knudsen, this Simms FFA member began with one cow and increased his grade Holstein herd to 74 cows and 58 heifers and calves. This past year he bought another 25 head of heifers. To accomplish such growth, Helmut reinvested most of his profits and borrowed from his father.

Helmut raises his calves in a 13-stall shed until they are three months old.

Owning all of his cattle, Helmut receives his full milk check even though his milk is picked up with his father's. He purchases the pelleted ration, pays veterinary expenses, and reimburses his father for the hay and home-grown grains fed to his cattle. He also pays his father 10 percent of his net income for the use of buildings, corrals, and equipment. He raises his income by selling bull calves as yearling steers and doing field work for his father.

Using a four-section, three-acre corral, Helmut is able to clean each section every third day without disturbing the cattle and keep calves, producing cows, and dry cows separate. Included in the buildings are a loafing shed with 85 free-stalls and concrete aisles throughout and a remodeled barn with a four-stanchion parlor. A 150-foot hay shed connects to the loafing shed, and a calf shed with self hay and grain feeders sets aside of the barn. Twenty-five of the free-stalls were added this past summer and plans are now being made to connect the barn and the loafing shed by means of a shelter.

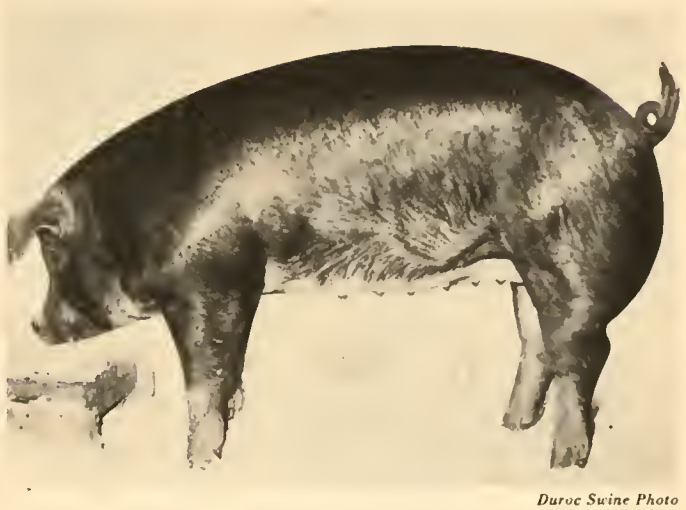
With this setup the expanding dairy farmer says he has gained labor efficiency and uses about one-fourth as much straw as he used to. As Helmut milks in the colinear parlor where cows can be let in and out individually, they are fed with an overhead feeder. The milk is carried by a two-inch line to a 500-gallon tank and a recently installed 300-gallon tank.

Helmut's present goal is to build and maintain a herd of 200 head that produce an average of 16,000 pounds of milk. He is majoring in agriculture production and believes his education will prove very beneficial in his dairy operation. After graduation from Montana State University, where he is president of the Ag Club, Helmut and his father plan to form a partnership involving the entire farming operation.

Helmut had to increase the size of the milkhouse to install the new bulk tank.

Selection Methods That Work

Matching a swine selection method with the performance records you have available can help you improve your herd at an accelerated rate.



Duroc Swine Photo

LARGE, fast growing litters aren't the result of good nutrition and management alone. While these are necessary practices, efficient hog production is founded on the genetic makeup of the breeding stock.

A good breeding program and heredity improvement, or genetic gain, make permanent advancements possible. A young swine breeder, knowing the purpose of each method of selection and what program to use, will make progress through herd improvement for years to come.

Many methods of selection are open to a breeder, but the ones you use depend on what records are available and how easy it is to obtain data. Here are some methods for selecting hog replacements which were prepared by livestock specialists C. J. Christians and R. L. Arthaud of the University of Minnesota.

Pedigree Selection. Because regulations prohibit breeders of specific pathogen free (SPF) hogs from selecting sires from a non-SPF herd, pedigree selection became the most used method of culling.

Most breeders use pedigree information for selecting young animals before the individual animal's performance is known. However, as the amount of data on the individual increases less emphasis should be placed on pedigree information. The reason for less consideration of the ancestry stems from the fact that only 25 percent of an individual hog's genes are similar to his granddam and grandsire.

Pedigrees also help a breeder when he looks for sex limited traits like milking ability or sperm mobility. Pedigrees likewise become valuable when selecting for traits of later life such as longevity and durability.

Individual Selection. Rapid genetic gains can occur from individual selection if heritability of desired traits is medium to high. For example, this method works when determining the transmission of such traits as rate-of-gain, backfat, and feed efficiency.

Nevertheless, records of the individual should be supplemented with production and carcass data from litter mates or pigs sired by the same boar.

Family Selection. As a breeder improves the characteristics of his herd, certain traits become less heritable. With family selection, though, progress in low heritable traits like sow productivity can be made through litter and progeny selection.

Litter Selection. This method helps measure the breeding value of the parents. Such traits as backfat, loin-eye, and dressing percent are determined individually, and, by simply feeding pigs in litter groups, feeding efficiency data can be obtained.

Detailed records of carcass length, backfat thickness, the percentage of ham and loin, and other traits on two litter mates is used to measure the breeding value of the dam and sire. It is best to test one barrow and one gilt even though most purebred associations accept either sex for certifications.

Progeny Selection. Progeny testing can lead to fast genetic progress because it's one of the most accurate ways of selecting breeding stock. Each new offspring record adds another sample of the genes transmitted by the parents to the selection information. Here are some of the steps that will help you make an unbiased progeny comparison.

1. Since gilts generally farrow smaller litters and milk less, don't breed all animals of comparable age to the same boar. Similarly, don't breed all animals of the same family to the same boar.

2. Use a sire on both the best and the poorest gilts and sows, not just one group.

3. Feed and manage all progeny groups in the same manner. Testing progeny groups at a central station, for example, will help insure accurate and uniform comparisons.

4. Test both sexes of a litter even though valid corrections for sex can be made.

5. Rate-of-gain records require many comparisons for accuracy. Usually, two pigs from five different litters must be tested to certify a sire. Of this group, however, not more than two of the dams can be full sisters or dam and daughter.

No matter which combination of these or any other selection methods you use for selecting breeding boars and gilts, emphasis should be placed on overall performance records. For its the genetic makeup that's behind this performance that can provide the answer to long-time hog breeding success.

Guidelines For Herd Improvement

These standards can help you along the road of successful beef breeding. ***By Richard George***

NEW breeders of registered beef cattle hunt diligently for the best available foundation stock. But, despite their zealous efforts, many eventually witness herd regression.

Even though they spend large sums of money bringing new breeding stock into a herd, many succumb to frustration and disperse. A venture invariably ends in a monetary crisis because of improper planning and poor selection of herd replacements.

Successful cattlemen, however, follow certain guidelines for selecting herd replacements. Such programs, often under various titles, help improve performance and production of each succeeding generation.

This herd improvement program is based on five guidelines, and has proven extremely progressive. The guidelines, or measurements, are conformation, size, rate-of-gain, milking and mothering ability, and fertility.

Conformation is the structural composition of an animal's body. It's essential in every animal retained for replacement, and of all the mentioned characteristics, conformation will undoubtedly help make more sales than any other.

Buyers are readily attracted by a good looking, stylish individual. This attraction generates, within a buyer, a longing to own "that" particular animal. Conformation is also an asset when the carcass is graded.

Size is an imperative trait for replacement stock. Since most bulls are sold to commercial producers, size is the yielding factor of profits. When your customers benefit, they will return for another bull or heifer. Failure to capitalize will drive them to your competitors for their future breeding needs.

Thus, repeat buyers are invaluable because they return without causing you to spend a dime on advertising. Soliciting new customers for each calf crop runs into insurmountable advertising, while bad publicity turns selling into a complex task.

Lately, when cattlemen discuss size, confusion seems to cloud the issue. What is size?

Many are steered into believing that size is an animal's height. Don't pursue this fallacy when selecting sizable replacements. The total pounds that animals weigh is their size. Obsession of tall, "horsey" cattle only promotes inferior quality and can send you spiralling from the peak of achievement into the depths of failure.

Rate-of-gain indicates the amount of weight an animal will gain in a given length of time, on a given amount of feed. This invisible characteristic is of grave importance. Organizing rate-of-gain records on a herd involves more work than any of the other guide-lines.

To conduct this segment of the program, each calf must be individually weighed at regular intervals. Accepted weighing ages are: six months, one year, and two years. Calves should weigh 400-500 at six months, 900-1,000 at one year, and 1,300-1,400 at two years. These figures are based on bull weights, and ordinarily heifers won't weigh as much at corresponding ages.

Early gains are of the utmost importance because commercial cattle are sold as feeders or finished cattle. Always strive to produce calves that gain rapidly up to 1,200 pounds and mature into large breeding stock. The commercial cow-man is aiming at a profit and that means he will be seeking animals that go to market in a hurry—on as little feed as possible.

Milking and mothering ability of breeding cows contribute heavily to the large size and fast rate-of-gain. Therefore, all breeders should try to hold back replacement heifers (and herd-bulls) from a strain of heavy milking cows to insure that calves get off to a fast start.

Mothering ability is that natural instinct to properly care for the calf after birth. Brood cows that habitually fail to claim their young, or let every calf in the pasture rob their milk, aren't desirable mothers.

Fertility, as anybody familiar with cattle production is aware, is essential for profitable production.

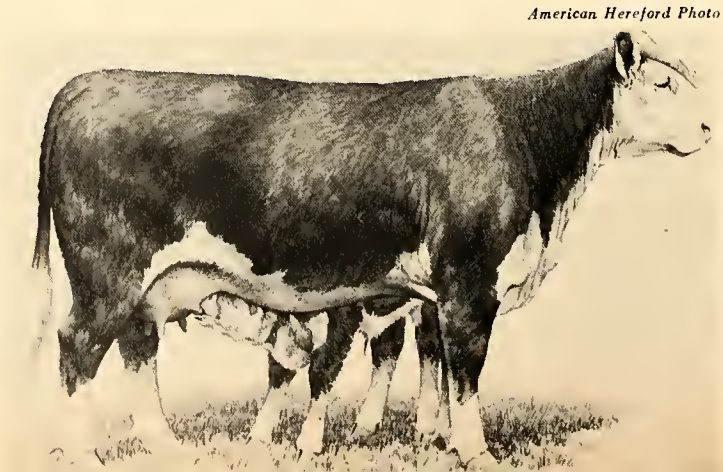
Breeders should keep accurate calving records on each animal. Any cow not producing a calf every 12 months, or a bull not settling the cows on schedule, is loosing money. Never save breeding stock from slow breeders unless some other non-inheritable problem is diagnosed by a veterinarian.

In a recent breeders seminar at Kansas State University some additional visual traits were suggested as helpful in selecting fertile replacements. One was to choose animals with a clear, alert eye, being cautious of cattle with a membrane which covers the corner of the eyes. Also, cattle that are a bit higher at the shoulders than at the rump generally possess a higher degree of fertility. Another means of reducing the frequency of sterility is to keep females that exhibit true feminity and bulls with unquestionable masculinity.

When you enter the purebred beef cattle industry, build your herd on popular bloodlines and superior quality. These initial steps will launch your beef herd toward the realities of success. Further, accompanied by a stringent set of guidelines, and adherence to them, you'll discover that the improvement of your original cattle purchase will be rapid and profitable.

Selecting good foundation stock will result in a high quality beef breeding herd.

American Hereford Photo



Guy Kassal Photo

Over 125,000 FFA members own and use horses for working stock and for pleasure.

"Old Paint" Comes Back

A DECADE ago there were about 4½ million horses in America. Now conservative estimates indicate over 7 million horses on the scene.

The horse population was 17 million at the turn of the century and climbed to 21 million by 1915, with most of these being draft and work horses. By the time 1957 came along, however, horse numbers had dropped to an all-time low of 3 million. Since that time the upward trend has been so rapid that predictions for 1977 expect a horse population of 10 million.

The evidence of the popularity of horses goes even further. According to the American Horse Council, the newly formed representative organization of the industry, over 65 million attended horse races last year. Being the largest spectator sport in America, horse racing draws more people than pro and college football and major and minor league baseball combined. In addition, some 550 horse shows and rodeos are held each year, and, according to recreation statistics, horses provide leisure for over one-third of the population.

As a result of this growing interest some colleges that once removed horse science from their curriculums are replacing it and reviving research efforts. For example, the University of Connecticut, noting that there are six horses per square mile in its state, offer courses in nutrition, physiology, behavior, management, and production. Once with one of the largest horse science departments in the country, the University of Wisconsin started light horse classes last spring. Since that time, evening and correspondence courses have been added and include studies in handling, training, and riding techniques. Says Raymond Antoniewicz, instructor and organizer of the program, "Students range in age from 11 to 60."

The impact horses are making on our economy is substantial. Theracon, Inc. of Topeka, Kansas, estimates owners spent over $4.8 billion feeding, equipping, and tacking their horses in 1968. This meant that the average owner spent about $735 worth of feed, equipment, and drugs. In addition, stallion fees cost owners from $25.00 to $10,000 per service and the investment in breeding farms totals $750 million.

The modest $150 average value of a horse adds another $1 billion to the industry's investment. Also, the industry contributed a minimum of $445 million in taxes to local and state governments in 1968. Thus, the size of the horse industry now exceeds $12 billion.

The major force behind the horse movement is youth. Garford Wilkinson of the American Quarter Horse Association says, "Psychologists link it to the fact that horses give youth a sense of responsibility for the health and welfare of a valued dependent—feeling that people have an inherent love for a dynamic, responsive animal that can be shared with others."

A. W. Cowan, head of the University of Connecticut's Animal Industries Department, believes that the mechanical age, what really caused the horse to become extinct on the plow, actually played the biggest part in the comeback of the saddle horse. Some parents simply say it's because horsemanship provides a healthy, worthwhile hobby.

But, perhaps the most dynamic influence comes from television and motion pictures. The impression portrayed by horses and cowboys relates a strictly American tradition to viewers. Thus, the horse serves as the predominant symbol of the ranchers and farmers who conquered and settled the West.

He is used for working stock and trail riding, harness and running races, parades, plantation walking, polo, hunting, showing fine harness and pleasure riding, and, of course, for breeding purposes. The comeback of "Old Paint" has truly arrived.

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"AUTOMATED" MILKING

How do you speed up milking while still giving individual cows the proper attention? One answer is an automated milker take-off mechanism. And here's one in operation.

By Nancy K. Reynes

Chris Mannion Photos

AT Point Reyes, California, a lonely wind-and-rain-swept peninsula jutting into the Pacific Ocean, stands the world's most automated milking parlor. Here 300 cows are being milked twice a day by one man, a daily "harvest" of some 1,600 gallons of milk.

To keep this river of milk coming, day in and day out, Mr. Joe Mendoza and his son, Joseph, Jr., rely on some of the most sophisticated electronic equipment to be found in any industry. The latest innovation—the one that puts the Mendoza Dairy in a class by itself—is something known in the trade as "automatic unit removal." This piece of equipment automatically releases teat cups from the cow when she is done milking. No operator needs to come and release them by hand.

At the Mendoza Dairy, cows choose their own time for entering the milking parlors and arrive at the milking stall washed, stimulated, pre-fed, and physically and emotionally ready to let down their milk.

In a lactomated parlor, as it is called, the cows are brought to the holding corral. A starter portion of grain lures one into the first of the prep stalls. The gate closes quietly behind her. Automatically, a spray of cool water strikes her from both sides, washing her down. The door to the stall opens and she walks on to the next where warm water is sprayed on her udder to stimulate the "let down" of milk.

When the operator releases one cow from the milking stall, the same button opens the gate to a prep stall and the next cow is on her way to be milked. As each one enters the milking stall, the stall automatically adjusts its length and width to her size, positioning her udder near the milking station.

The operator attaches the teat cups, where a low vacuum is used. A separate pump pushes the milk from the claw, one pound at a time, up the pipeline to the holding tank. Pressure on the teat remains consistent.

A device, tied in with the pump, meters grain to the cow in direct proportion to the milk she is producing; a computer tabulates the pounds of milk collected at each "station;" a flashing red light signals when production has dropped sufficiently to start triggering the automatic take-off mechanism.

Once the milking unit has been removed, the operator pushes a button, the gate to the stall opens and the cow is on her way back to the corral. If the milker has observed any irregularity about her—perhaps a suspicion of mastitis or some injury—he can push another button that automatically heads her up another lane and into the hospital barn.

Do cows mind the impersonality of machine handling? The Mendozas find that cattle responded by giving more milk and giving it faster. Cows seem to thrive on the sort of monotonous routine that would drive a human up the wall. Cows hate sudden, loud noises. They dislike gates that pinch and clatter, walkways that are slippery, glaring lights, sudden, nonrhythmic tugs on their teats, surprises of any sort. They hate to be prodded or hurried. They like quiet.

They like to go at their own pace; they like to see what is going to happen to them before it does happen; they don't want to be overmilked (or undermilked for that matter); they want to be sure they will always have plenty of grain all the time they are being milked.

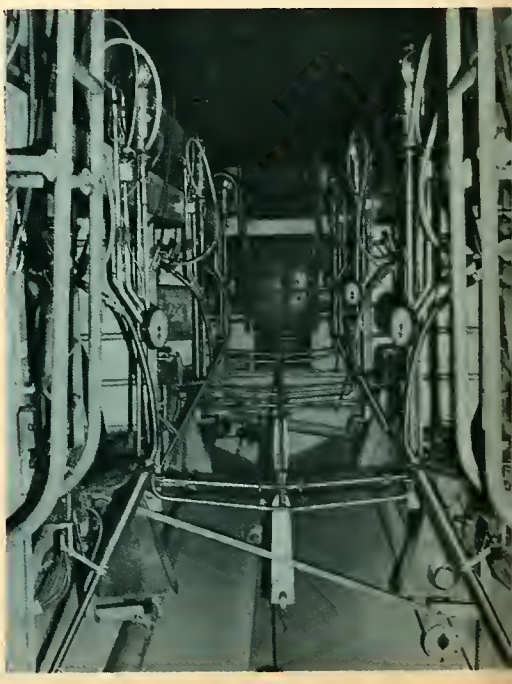
In fact, there's nothing a cow would like more than to be let alone and to have a routine that never varies. Automation can do that as no man, or combination of men, can.

The large dairies—the Reliance Dairy in Delano, California, billed when it was built three years ago as America's "most modern" dairy; the Dawn Dairy in Corcoran, California; the Knowlton spread near San Antonio, Texas; the R & W Farms in Dyer County, Tennessee—are moving towards this type of milking automation. Its manufacturer. the Ross-Holm Milking Method of Petaluma, California, calls it "lactomation."

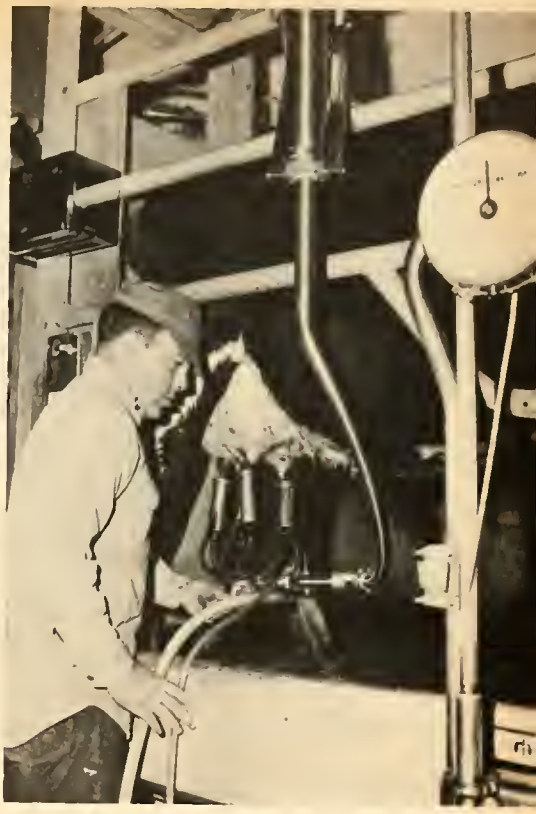
To design a family of machines that can take over the farm chores is no easy talk. It's no wonder that a modern milking parlor has been likened in complexity to the "systems" designed for supersonic transport planes—or that some dairymen have found the price tags to be equally oriented to outer space. Many of the engineers that designed it have been wooed away from California's aircraft industry to apply some of their same techniques to the milking parlor.

Ten years ago when Mr. Bill Holm first entered the business of planning milking parlors, he called on Mr. Douglas Clegg, a gentleman-dairyman in Calistoga, California. Mr. Clegg, an engineer by profession, examined Holm's

The Mendoza parlor is a maze of machinery and tubing. To the rear of the milking stations are the prep stalls and in back of them is the holding corral.



The self-releasing units permit one man to handle six cows at a time with ease.



Doing about the only necessary manual labor, Joseph Mendoza, Jr. adjusts the claw at the start of each cow. The dial at the right registers the pounds of milk and is connected to the computer which prints the production in report form. The unit releases automatically when the cow is completely milked out.

equipment carefully and then said, somewhat smugly, "I could design a better system myself."

"And much to my surprise," Bill Holm now admits, "he did. And we've been improving on it ever since."

The first challenge they met was the danger of rancidity in the regular pipeline-type of milking equipment. Vacuum was uneven; the milk foamed; too much air was being mixed with the milk. So, a different system of moving milk—one which did not churn up the milk, but pushed it gently, one pound at a time, to the holding tank—was devised.

Then Ross-Holm began to listen to dairymen who complained that they had to give up fundamental information when they shifted from bucket to pipeline—milk and fat production of individual cows. Other questions like what was responsible for a dip in production also arose. These problems triggered the idea of Ross-Holm computers to tally the pounds of milk given by a cow as she was milking.

Next, the firm turned its attention to parlor layout. It seemed necessary to get the cooperation of the cow, to cut out as many as possible of the chores—moving cows, feeding, and washing—that men perform. "Not many men can do these chores efficiently. It was taking as long to wash and prepare a cow as it was to milk her," Mr. Holm recalls.

"Once completed, even we were surprised at how well the lactomated parlor worked," he now admits. "The cows liked it. They liked the idea of being treated the same way every time. The very first year a 12-year-old cow in our experimental barn made a world's record—and she did it as one of 200 cows being handled by one man."

Somewhere along the line they adopted the flashing light as a signal to show when the rate of flow of milk from a cow was beginning to dip. And with this, they were able to give the milker even more help. For one thing, he could see at a glance which units were ready to come off, which cows needed him right now.

But with four cows at a time, two on each side, a man couldn't always pace himself to the cow's requirements. Heifers that were ready to milk out in two minutes were left with the units staying on longer and unconsciously adapted to man's slower pace. Other times units were being removed before cows were milked, causing a drop in production and encouraging cows to dry up early. That's when the automatic take-off mechanism was conceived.

And, as Joe, Jr. and his father will testify, automatic take-off does speed up milking. Where it took two men to handle 300 cows, they now expect to have two handling 450 cows. Later, as the men grow more efficient, he may be able to increase the number of cows still more.

This is in sharp contrast to 1919 when Mr. Mendoza's father came over from the Azores and purchased the 1,300-acre ranch on the fog-shrouded coast of Northern California. They had a milking herd of only 160 cows and to milk those cows, Mr. Mendoza's father needed seven men Now, one operator handles almost twice as many.

Mr. Mendoza was only a year old when his father settled at Point Reyes; now his oldest son, Joseph, Jr., is out of college and actively associated with him in the management of the dairy.

"Dairying has been very good to our family," Mr. Mendoza will tell you. His statement is amply borne out by the starkly beautiful acres of the seaside ranch, by the comfort of his rambling ranch house, by the gracious, easy hospitality he, his wife and sons dispense. A well-filled gun rack, boats for fishing, dairying magazines, hunting dogs—they all bespeak an active, happy life. And it's automation that has freed the Mendozas from the dawn to dusk, backbreaking treadmill of work that used to typify "dairying" in this country.

Of course, automation also has hazards peculiar to it. Like the ghastly day and a half one winter when Frank Walker of Rosni Farms in Orange, Virginia, found himself without electricity. "There we were with 200 in our milking herd and no possibility of milking them by hand. For all that time we just sat and waited. We didn't feed them. We didn't water them. We didn't do one thing. Just waited. But, the next week I went out and bought a generator!

His story makes other dairymen wince, perhaps, but not retreat. Dairymen know easier working conditions and increased return on their investment are the only way they can combat the restlessness of their children. Automation, to them as to the Mendozas, has meant prosperity, not bankruptcy, and has perpetuated the concept of the family farm.

In the ten years that Eddie Jones, Section, Alabama, has been farming, he has increased his annual broiler marketings five times over. He started with 40,000 birds per year and went up to 58,000 after enrolling in vo-ag. His next step was to 150,000 broilers, after building two brooder houses, then 175,000, and now, this year with a new house, he will market 220,000 broilers.

The young, full-time farmer now owns one-third interest in the family farm, consisting of 240 acres, and manages it. Using the value of his farm construction work and money accumulated from previous enterprises, Ed purchased 33 percent of the farming operation. Last year he completed paying for his share and is now working toward a 50-50 arrangement.

Besides the poultry operation, the Joneses manage a 130 head beef herd, feed out 200 hogs, and crop about 50 acres in corn, 10 in cotton, 35 in hay, and pasture 63 acres on the home farm and 33 rented acres. The rest is woodland. In addition, Ed operates a 75 head swine farrowing program of his own.

Ed and his father, a carpenter by trade, built two 350 x 34 foot broiler houses at the time of the initial broiler expansion. This included designing, as well as measuring and cutting lumber, pouring footings, and roofing. In addition, the young full-time farmer insulated the walls and overheads of both houses, assembled 38 brooders, and installed the wiring in one brooder house while his father did the other.

The partners have since constructed a 98 x 20 foot farrowing unit, added a 100 x 24 foot topping house for finishing hogs, and built a 60 x 24 machine shed-shop combination. Meanwhile, Ed installed power feed tracts to permit more frequent feedings, replumbed the broiler houses for automatic watering, and built divisional screens which prevent broilers from piling up and suffocating. Expanding still further, the Jones completed a third house just last year.

220,000 Makes It...

Ed grows big, three-pound birds with just six pounds of feed. In doing it, his broilers have averaged daily gains as high as .048 of a pound and reach the market in 63 days.

He recently marketed 90,560 pounds of meat from 175,990 pounds of feed—yielding a conversion ratio of 1.94. This efficiency pays extra dividends for Ed, too. Besides benefitting from big savings, he receives a $200 premium from the feed company for maintaining a conversion ratio under 2.0. At the same time, livability of the poultryman's broods never drops below 95 percent and consistently stays around 98 percent.

According to Ed and his father, they relied heavily on the advice of Advisor Cecil Gant in working out their partnership arrangement. Here the young farmer and his advisor, who also assisted with other aspects of the farming operation, examine a growing chick.

In managing the poultry business and other farm enterprises, Ed uses detailed farm records to make all decisions. His management ability has led to contracting with feed companies, feeding more per day, expanding volume, and confronting marketing agencies for better contracts.

Ed allows nine weeks for growing each brood of broilers and one week for cleaning, repairing, and making other preparations for the next brood. In this way he's able to grow and market five broods annually, while providing a two-week cushion for unpredictable circumstances.

He also buys broiler equipment and building supplies at volumn discounts and uses chicken litter to supply nitrogen to corn and reduce his fertilizer bill by 50 percent.

Eddie preaches what he practices when it comes to poultry. He lectures at poultry health and sanitation seminars, speaks at group meetings, serves on national poultry improvement committees, and exhibits and judges poultry at fairs. As the poultry farmer says, "I love chickens! That's why I live and talk poultry and inhale the aroma of Southern fried chicken regularly."

Due to this interest and superior poultry production, the young farmer earned the Section FFA Star Greenhand and Star Chapter Farmer awards, gained Alabama's Star Farmer and National Poultry Proficiency honors, and won Alabama's M. K. Heath award for health and sanitation with livestock. He is also an outstanding FFA officer, a leader in church, civic clubs, livestock associations, and other farm organizations.

PREVENTIVE MEDICINE

How can you cut down on big dollar health losses?

By Ron Miller

Ciba Pharmaceutical Photo

Preventing disease requires good management, nutrition, and breeding, in addition to a complete health program.

WHEN our population reaches 230 million—an increase of some 30 million—in 1975, livestock producers will need to supply an additional 8 million pounds of red meat, 25 billion pounds of milk, and 10 billion pounds of eggs.

Yet, USDA figures show that six percent of a 44 million calf crop—dairy and beef—died in 1968. That same year over 1.5 million older cattle were lost before being slaughtered. Similarly, many other sources record that between 25 and 30 percent of the pigs farrowed died before reaching breeding or marketing age. Furthermore, according to estimates by the USDA, farmers now lose over $3 billion annually from livestock diseases, parasites, and insects. It also costs about $50 billion a year to administer livestock pest control programs across the country.

Although accurate figures are hard to obtain, those mentioned do demonstrate a need for improved livestock health. And, when you think about why such losses occur, it comes to mind that there must be some way that farmers can limit this disaster and lower costs.

Reasons Why

It now costs around $8.00 a month to maintain a dry dairy cow, from $20.00 to $30.00 to feed a calf to veal age, and between $250 to $300 to raise a heifer to production age. Furthermore, researchers say the net cost for producing 100 pounds of milk varies from $1.50 to $1.60 and the average net profit per cow producing at a 400-pound-fat, 10,000-pound-milk level ranges from $70.00 to $80.00.

Many of these ranges in production costs and profits can be explained by differences in medical expenses incurred by farmers. According to Iowa State University and other midwest college researchers, veterinary expenses make up 10 to 15 percent of the nonfeed dairy production bill.

Feeding out a 400-pound beef calf varies from $50.00 to $75.00 and the maintenance cost of a beef cow ranges between $40.00 and $60.00. In total, with a 100 percent calf crop, cow care should run about $75.00 per year. However, with an 80 percent calf crop the cost per cow jumps to $93.70.

If a 100 percent calf crop of 500-pound calves were obtained, the break even cost would be $15.00 per hundred pounds of beef. But with an 80 percent calf crop of 400-pound calves, this cost will reach close to $24.00 per hundred pounds. Again large death losses and veterinary expenses provide some "whys" that a wide variance exists. Estimates from National Livestock Feeders Association data show that these factors cost farmers and ranchers about 10 percent out of their total nonfeed bill per lot of feeder steers.

Most cost variances in livestock production depend on the efficiency of each farmer. To take this further, management and herd health determines how big your veterinary bill will be and how much profit you make.

With farmers and ranchers keeping more complete records, small losses per animal and per farm unit become easier to detect. This means you can determine the causes of a slow growth, poor efficiency, reproduction problems, and low production earlier. Records can also help you diagnose disease and pest problems before real trouble sets in.

There is, of course, the other side of the story. Health problems that once caused small losses now become large expenditures as the total numbers of livestock per farm increase. Moreover, greater concentration of livestock on farms requires increased attention toward the prevention of disease.

While treatment means calling a veterinarian when an animal shows signs of stress, prevention encompasses a health program in all areas of breeding, feeding, disease control, and management. And in a specialized livestock operation, a prevention program can cut marginal production losses and help you make more money.

Planning A Program

To set up a health program, a livestock producer and his veterinarian must work closely to plan the program according to the requirements of the livestock operation. It will take some time and planning, but overall, less time may actually be spent caring for livestock. A prevention health program simply applys day to day good practices of sanitation, vaccination, breeding, and nutrition.

There are many points to consider when creating a prevention system for your livestock operation. Here is a list of phases, prepared by Dr. John B. Herricks, extention veterinarian at Iowa State University, that should be included in a prevention program.

- A vaccination schedule.
- Short term treatment of animals during critical periods.
- Elimination of specific subclinical, or slightly abnormal, disease in individual animals.
- Improvement of management procedures.
- Use of theraputic, or corrective, nutrition, as required.
- Consideration of new and old rations.
- Selection of animals and herds for obtaining breeding stock.
- Reviewing performance—production, breeding, and health—records.

This heifer won many grand champion ribbons for Dale.

Dale uses crossbreeding in his commercial hog operation.

Production Testing Helped

Because he made full use of the performance records.

SUPERIOR selection and production testing has led to success in livestock farming for Dale Hawkins, Stet, Missouri. He started in a junior vo-ag group of seventh and eighth graders with six beef cows and six swine—but now manages a self-sustaining beef herd and a commercial hog setup.

Dale's herd consists of 40 registered Polled Hereford cows and two herd bulls. He and his father each own 50 percent of the beef operation and sell the calves as breeding stock. They feed out a few show steers and buy and market 60 to 70 heifers annually.

The young livestock producer acquired much of his selection and culling skill through participation in livestock judging. In 1966, Dale was a member of the Stet FFA team, coached by former Advisor Kenneth Nofftz, that took first place in the Missouri livestock competition. The team went on to win a gold emblem in the National FFA Judging Contest—with Dale and teammate William Falls each winning a gold medal.

Dale combines this ability with sound production testing by having his entire breeding herd evaluated by the University of Missouri with sonoray. Sonoray equipment produces a high frequency sound that measures the meatiness and fattiness of the animals. Dale's ability to raise a 450-pound calf from every cow last year testifies of his proficient use of the records gained from the program.

In the production and type program Dale's bulls grade B or B+. Since it takes a daily gain of 2.4 pounds and a minimum adjusted weight of 950 pounds in 265 days to receive a B-rating, you can visualize the type of quality his cattle exhibit. His oldest cow still produces $2,000 calves at age 19, and several other old cows do likewise, demonstrating longevity and durability.

The stockman is a member of three Polled Hereford Associations and exhibits at state and local shows. His winnings include several champions—counting a Missouri State Fair open class grand champion female. Dale also advertises his cattle and sells at major sales. Other practices followed by the livestock producer are annual herd vaccinations and separating calving cows from the rest of the herd.

In Dale's 100 percent owned hog program, keeping only meat-type gilts weighing over 225 pounds at 5½ months, yields high production for him. Farrowing over 40 sows a year, Dale averages 8.5 pigs from each litter. He crosses Yorkshire sows and gilts with registered Duroc boars and ships some 100 hogs annually. The rest of the pigs are sold as feeders. Although the herdsman self-feeds his market hogs, he hand-feeds his brood sows.

Dale, the 1969 FFA National Livestock Proficiency award winner, grows most of the feed needed for the livestock operation. He crops around 60 acres in corn, 100 in soybeans, and harvests 80 acres of hay—25 acres of alfalfa and 55 of brome. He pastures another 170 acres and plants some wheat and oats.

An on-the-farm grinder-mixer unit helps this farmer save money in both of his livestock operations. Dale charts concentrate feed prices and buys substitute feeds while still maintaining balanced rations.

Dale owns one-half interest in 160 acres and rents another 304 from three different land owners. However, he has full operational and management control of all the land. He also helps his father who owns and rents a total of 470 acres. When time permits, Dale does custom work.

Nevertheless, all farm improvements made by Dale—including diversion of the farm stream and building of three waterways and three miles of terrace—have been done with the idea of improving the livestock operations. This interest is also indicated by the work done remodeling the barn and cattle shed, pouring a concrete feeding floor, and installing automatic waterers and other livestock equipment.

Dale takes this interest in livestock still further—to college at the University of Missouri. Since studying agriculture there, he has been a member of are Ag Club and the Block and Bridle Club. He has also served as chairman of the judges for the ag college's annual international livestock showmanship contest. "After that," Dale says, "I plan to return to farm my land, perhaps buy more land, and raise registered cattle and commercial hogs."

Go International

DO you want to learn about agriculture in another country? If so, participating in one of the international programs offered by the National FFA Organization can be the answer. These programs are open to you and your FFA chapter and give you the opportunity to "GO International in 1970."

National FFA Study Tours are planned and developed by the National FFA Organization in conjunction with rural youth groups in other countries. In 1970, several state FFA associations are planning three-week tours to Europe for their members. Itineraries are approved by the National Organization and offered to the states.

In addition, another tour will be open to individual FFA members from states not currently planning a study tour. Leaving Washington, D.C. in late June, this group will visit Scotland, England, Holland, Germany, Denmark, and Sweden. They will see typical farms, agricultural research facilities, agriculture schools, agri-business firms, and historical places.

Work Experience Abroad is open to FFA members who are interested in living on a farm in another country to gain farm experience and to observe different farming methods. To qualify you must have practical experience in farming or another specialized agricultural field and have working knowledge of the language, or complete a language study course after being accepted. You must also be between 16-21 years old, be in good health, and carry health and accident insurance while in the program.

Students learn the country's history and the people's culture and traditions by working with a farm family for either three or six months. Attendance at rural youth meetings, a summer conference, and a two-week study tour in Austria, Denmark, France, Germany, Holland, New Zealand, Sweden, and Switzerland are added parts of the 1970 program.

FFA chapters are also encouraged to apply to host a foreign students in their community for six months.

Ag Classroom International combines classroom study of European agriculture, a study tour in Europe, and a leadership conference in Washington, D.C. into one exciting six-week program Activities throughout the program will concentrate on international agriculture as it relates to import-export problems, agriculture trade agreements, the Common Market, and the European Free Trade Association.

A total of five weeks are spent overseas. Three weeks of class study and field trips, including visits to research stations, rural cooperatives, youth organizations, and agricultural industries, will be held in Denmark. A two-week study tour to Amsterdam, Berlin, Bonn, Paris, and Brussels will follow.

Eligibility requirements, complete itineraries, and reservation forms for each program are available from the National FFA Organization. Simply send your request, stating which program you're interested in, to: National FFA Center, P.O. Box 15160, Dept. I, Alexandria, Virginia 22309.

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UNION PACIFIC

YOUR GOOD NEIGHBOR WHO IS HELPING TO BUILD THE WEST

THE CHAPTER SCOOP

news, notes, and nonsense from everywhere

by Jack Bitzer

Compliments to the *Fort Bend* FFA in Stafford, Texas. Print their own FFA and Vo-Ag newsletter. Good job, too.

N-N-N

Junior and senior members of the *Deaver-Frannie* Chapter, Wyoming, are planning a four day trip to the Denver Stock Show, a packing plant, feedlot, and state capitol.

N-N-N

Walkersville, Maryland, Chapter put up an FFA sign at the entrance of their town.

N-N-N

Hamburg, Iowa, purchased new FFA manuals.

N-N-N

Jack Moore of *Nicholas County,* West Virginia, Chapter sold 20 pounds of potatoes for $101 at county potato festival. Mighty valuable spuds!

N-N-N

Indian Valley, Ohio, FFA painted stop signs for the town of Gnadenhutten. Later, they'll paint posts and put the signs up.

N-N-N

Deland, Florida, Chapter has a fine citrus grove. Tasted their crop on a recent trip through Florida.

N-N-N

How about a vo-ag classroom in FFA colors? That's the way it is at *Lamberton,* Minnesota.

N-N-N

A first for *La Habra,* California, FFA. Named Club of the Month at their high school.

N-N-N

Park Rapids, Minnesota, had a wiener roast to entertain other vocational youth groups in their school—homemakers, teachers, nurses.

N-N-N

Dads of *Maroa,* Illinois, FFA members look forward to the annual hamburger fry in their honor.

N-N-N

Plenty of members in *Rogers,* Arkansas, FFA to do the work. They initiated 96 Greenhands this year.

N-N-N

Woodland Hills, California, Chapter has a barbeque along with Greenhand initiation.

Freshmen members of *B. E. Groom* Chapter in Langdon, North Dakota, collect durum samples for U.S. Durum Show. Use money to pay for their jackets.

N-N-N

FFA at *Bend,* Oregon, purchased a seven month old registered Hampshire boar.

N-N-N

Platte Valley Chapter at Kersey, Colorado, held their annual bred gilt sale on January 24.

N-N-N

Family Fun Nite at *Pierceton,* Indiana, included free chili supper, program by FFA, then slave auction.

N-N-N

In New Mexico, the *Des Moines* Chapter cuts trees on ranches to help SCS. Then sells the fence posts.

N-N-N

A cooperative wheat project is being carried on by the *Hill City,* Kansas, Chapter. The 10 acres of Scout wheat is available in $5.00 shares.

N-N-N

Fatima, Missouri, members built and sold 200 gates, 10 wagons, and 6 wagon beds this year to support their chapter.

N-N-N

Interesting! *Miles City,* Montana, FFA held swimming lessons for all interested members. Program offered one week of free lessons. Had volunteer teachers.

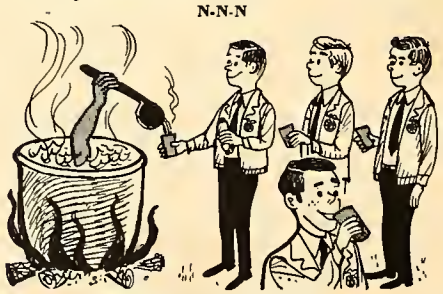
N-N-N

Bridgewater, South Dakota, Chapter agreed to buy and process one roll of film for each of their delegates to the National Convention.

N-N-N

Chapter members at *St. Ansgar,* Iowa, have checked 137 wells for nitrate bacteria and surfactants. Cooperated with County Extension Office.

N-N-N



Knox County, Missouri, FFA served hot dogs and Greenhand punch (???) after their initiation ceremony.

N-N-N

Donkey baseball games are still popular. The Corvallis Sheriff Posse beat *Corvallis,* Oregon, FFA 10 to 8.

Fontanelle, Iowa, asked for fund raising suggestions or ideas from community leaders.

N-N-N

Ephrata, Washington, FFA decided to take down all old advertisement or political signs in their area.

N-N-N

Dan Edington of *Coleman,* Texas, had grand champion steer of the junior show at Texas State Fair. Steer sold for $4,500 at auction.

N-N-N

Wilber, Nebraska, Chapter officers sent a letter to parents of Greenhands inviting them to attend meeting to see son be raised to Chapter Farmer degree.

N-N-N

Our Parliamentarian kept the meeting interesting as he corrected some of our errors, reports **Gary Anderson** of *Ipswich,* South Dakota, FFA.

N-N-N

Davis, Utah, Chapter reported a gunfight during intermission of their successful Barn Dance and Harvest Ball. Sounds plenty rough to me!

N-N-N

"We are collecting old batteries for our first fund raising activity," reports **Joe Young,** *Smith,* Massachusetts, reporter.

N-N-N

Layne Myers of *Marsh Valley,* Idaho, FFA appeared with his local IGA manager in that firm's magazine. Manager named Honorary Chapter Farmer.

N-N-N

Members of *Wausen,* Ohio, Chapter helped clean up after fire destroyed building owned by Honorary Chapter Farmer.

N-N-N

Bill Weir, whose steer was grand champion at the International Livestock Exposition's junior show in Chicago, is a member of *Union of Briggsville,* Indiana, FFA.

N-N-N

Way to encourage members to wear FFA tie. Give tie to anyone ordering a jacket. It works at *Parkersburg,* Iowa.

N-N-N

What fresh ideas are being used in your chapter? Let's hear about them.

THE 1969 Census of Agriculture has been designed to provide information needed by farmers and by those who serve farmers. So that farmers and ranchers can complete the census forms at their convenience, forms were received through the mail for the first time this past January.

Since response is required by law, farmers who do not return a completed report will be contacted to obtain the missing forms. Also, because your vocational agriculture teacher received advance copies of the farm census forms, he may be able to assist you and your father with any problems you may have in filling them out.

The definition of a farm will remain the same as in 1959 and 1964. That is, places of less than 10 acres will be counted as farms if more than $250 of agricultural products were sold during 1969. Places of 10 acres or more acres will be counted as farms if sales amounted to $50.

Although many of the questions about farm acreage, crops, and livestock are the same as requested in previous census, several new items have been added. Information like the farm operator's age, value of farm products sold, age and market value of machinery, expenditures for formula feeds and chemicals, and other selected items are now included.

Data will be compiled according to farms with sales less than $2,500 and farms with sales of $2,500 and over. Detailed items for the larger farms will include crop acreage, acres irrigated, fertilized, and applied with chemicals, and inventory numbers of livestock and machinery. Farms selling less than $2,500 worth of products will be provided with a short version of the census form to avoid answering unnecessary questions.

In addition, the scope of the census will be enlarged through a series of mail surveys to specialized operators. These questions, dealing with the major trends in production methods, will be sent out in 1971.

Additional facts about the general characteristics of farm and non-farm people will be recorded when the Census of Population and Housing is taken in April of this year. This information will primarily pertain to occupations, housing, education, and other household data.

New Farm Youth Safety Order

A NEW hazardous occupations order that will protect hired workers under age 16 from particularly unsafe jobs will go into effect on February 6, 1970. The order was signed by Secretary of Labor George Shultz on December 31, 1969, and replaces an interim order of January, 1968.

Fourteen- and 15-year-olds who complete training under approved federal extension service or vocational agriculture programs may receive an exemption for operation of tractors and some farm machinery. The order, as in the interim order, does not apply to youths employed by their parents or persons standing in for a parent, nor does it supersede more stringent state laws.

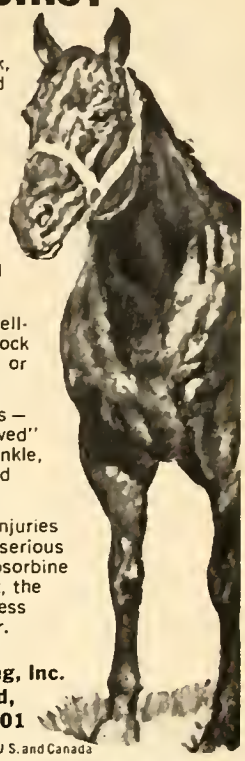
Cooperative vocational agricultural student-learners will also be exempt from certain provisions of the order. Previously, (Refer to "The Hazardous Occupations Order Affects You" in the June-July, 1969, issue), exemptions were available for vo-ag student-learners for all sixteen hazardous occupations in agriculture. However, the new order lists eleven occupations and student-learners are now exempt from orders 1-6, but not from the last five.

Other modifications include changing the minimum power rating of tractors from 20-belt to 20 PTO horsepower. The order dealing with chemicals was also updated in accordance with new regulations. In addition, some machines were dropped from the list while others were added. Generally, though, the new order is more concerned with safety and hazards within an occupation than with eliminating practices like the interim order did.

The order was developed with the assistance of an advisory committee representing youth—including Greg Bamford, 1967-68 National FFA President—farm owners, agricultural associations, educational institutions, unions, farm, industry and safety organizations, and other government agencies.

Copies of the order are available from the Director, Bureau of Labor Standards, Washington, D.C. 20210. If you have any questions about the new order ask your vo-ag instructor and check with your local labor office.

Does your horse have these symptoms?



1. Stiff-gaited walk, or refusal to stand on all four legs are general symptoms of lameness. Check horse over carefully.

2. Swelling and heat on front of foreleg from knee to ankle. It's called "bucked shins."

3. Soft, painless swelling around the fetlock is called "windgall" or "windpuff."

4. Swollen tendons — swelling gives a "bowed" look from knee to ankle, so it's called "bowed tendon."

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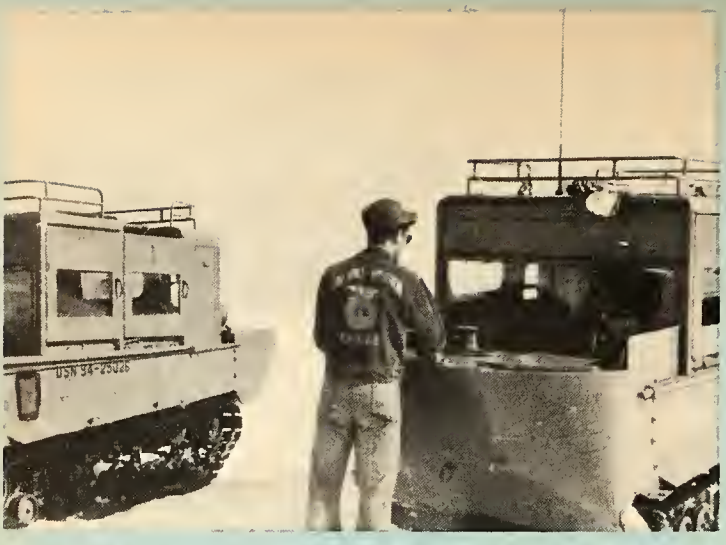

These are two of the "weasels" which Bill operated on the U. S. Navy's Deep Freeze Project at the South Pole.

FFA Pride Travels Far

Though Bill Whim was no longer an FFA member he still had esteem for FFA.

By Elizabeth E. Barnes

Bill, like the rest of his service buddies, enjoyed making friends with the fearless penguins on their time off.

THERE'S no limit to how far an FFA member's pride will take his blue jacket. As demonstrated by Bill Whim, even a trip to the South Pole is not too far.

Bill and his FFA jacket started to travel after Bill completed high school and four years of FFA at the Shawnee Mission Chapter near Kansas City, Kansas. Bill decided to join the Navy and chose the Seabees, whose program offered the opportunities best suited to his interest—handling heavy equipment, construction machinery, and travel.

Bill was immediately assigned to Admiral George Dufek as his official driver. As it turned out, this was to be a job that he would hold throughout his four year enlistment.

Bill's first year was spent shuttling back and forth between the nation's capitol and various naval installations along the east coast. And along with him went his FFA jacket.

Then came the big moment. In November of 1955, Bill was to accompany Admiral Dufek to the Antarctica on a mission for the Navy to establish research stations. Admiral Richard E. Byrd, who went to the South Pole in 1928, was chosen to lead the first of two Deep Freeze projects. It was during this time that Bill—FFA jacket and all—served as official "weasel" driver for the two men.

Previously, Admiral Bryd had set up four "Little America" bases at the South Pole. When the "Deep Freezers" arrived, they found one of these bases partly crumbled into the water. So, 700 miles further inland, they constructed a more complete living area—including tunnels between living quarters and laboratories for protection from the weather. A second Deep Freeze expedition the following year completed the establishment of seven bases on the Antarctica continent.

Bill found no plant or animal life on the inland of Antarctica. However, near the coastlines, he did spot an occasional seal or killer whale and numerous penguins. To Bill the clumsy, flightless, and whimsical penguins added the comic touch to the otherwise serious undertaking. They showed no fear of man and were a source of amusement and a pest, as fences had to be built to keep them out of camp.

Admiral Dufek wished to present Bill with a token for good service. When asked what he would like, Bill replied, "I'd like to have a penguin." A penguin was shortly forthcoming, and now has a place in the recreation room of the Whim home. The bird is the center of attraction to all callers, and provides Bill with many vivid memories.

With naval service completed, Bill continues with his job of driving, this time with a commercial truck line. Between hauls he utilizes his time with gardening, home upkeep, some soil preparation and landscaping for a construction company, and recreation with his wife and two sons.

Besides Bill, many other individuals contributed to the success of the Shawnee Mission Chapter. The chapter had more than its share of State Farmers—37, 7 state officers, 1 national officer, and 3 state public speaking winners.

The Shawnee Mission Chapter also played an important part in Kansas City at the National Convention. Members served as "messengers"—forerunners to the Courtesy Corps, took part in many pageants, and manned the seven episodes of the impressive Star Farmer Tableau. Other work of the chapter included making stage props—including the stars for the Regional and Star Farmers, the large victory "V" after World War II, and the silver anniversary cake. At the same time this chapter provided much help in their local community and school affairs.

However, in June of 1961 the Shawnee Mission Chapter was disbanded due to suburban development of Kansas City. The chapter, chartered in 1929, was organized by Mr. Harold D. Garver, who also served as advisor for the chapter throughout its entire existance. It was Mr. Garver who presented Bill's far-travelled FFA jacket and other chapter items to the FFA National Archives.

White Oliver has adapted a 758 cultivator and built a new 676 rotary tiller, and teamed them up with 343 tool bar planting units to make a compact minimum tiller-planter combination. The units are available in widths up to 17 feet.

Something New

A 16-inch, 8-bottom semi-mounted Powr-Set plow, Model 3000, has been introduced by Case. It comes with self-tripping bottoms that reset by hydraulic cylinders that are located in the frame members, a self-steering tailwheel, and a heavy 6-inch welded backbone.

Massey-Ferguson has produced the first V-8 tractor in North America, the 1150. The engine has a displacement of 510 cubic inches and produces 135 PTO horsepower. Hydrostatic steering with a tilt and telescoping wheel and a 12-speed transmission are other features.

International Harvester's new 225 self-propelled swather has a 10-foot platform and is powered by a water-cooled, 153 cubic inch engine. The 225 cuts 1,500 strokes per minute and power is transmitted by a two-stage belt drive.

New 100-Integral Row-Crop chisel plows by John Deere come with 32-inch standards and side-throw shovels. They also have 4 x 4-inch tubular steel main frames. Sizes for 3-point hitch tractors include widths up to 16 feet.

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Daily Quill Photo

MISSOURI—The West Plains Chapter appreciates the support from their community. Pictured left to right are Robert Hinds, noted registered Hampshire breeder, Willow Springs; David Gohn, vice president, West Plains Bank; Jim Campbell, FFA Chapter president; and Larry Rost, vo-ag instructor.

The boar was top selling sire in the annual Hinds' Farm Fall Sale. It was purchased by the bank and presented to the chapter for improving their breeding stock. Offspring will be sold at the chapter's second annual fall sale in 1970. *(Larry Rost, Advisor)*

MINNESOTA—The "sod" busters are state officers, left to right: Tom Kopacek, Olivia, treasurer; Doug Sandmann, Lamberton, sentinel; Gene Sanford, Northfield, reporter; Richard Habendank, Thief River Falls, president; and Roger Opp, Appleton, vice president. They are breaking ground for a new greenhouse to be built with funds from FFA Corn Drives. It will be built at the new Courage Rural Work and Training Center for training disabled adults in agricultural work.

The center is located adjacent to Camp Courage, where FFA contributed funds to build a speech and hearing therapy building. Camp Courage and the Courage Rural Work and Training Center are both projects of the Minnesota Society for Crippled Children and Adults, Inc. *(W. J. Kortesmaki, Executive Secretary)*

North Whitfield members get on-the-job assignments in the FFA greenhouse.

THE

GEORGIA—The ornamental horticulture program at North Whitfield High School in Dalton, Georgia, has come a long way since 1965 when the FFA chapter built a small greenhouse adjacent to the school.

Last year, the FFA members built a new greenhouse, 30 feet by 80 feet in size, and this year have it overflowing with plants of all kinds. The greenhouse was constructed in cooperation with the Whitfield County Board of Education.

"The boys did all of the work on the new greenhouse, including the wiring," says advisor J. T. Trammell. "As a result of the wiring program, our chapter was selected to receive the area chapter award in the Georgia Power Awards Program."

There are 84 students in the horticulture class at North Whitfield this year, and these students learn all phases of plant production. They learn to sow seeds, propagate plants from root cuttings, prune plants, test soil and fertilize according to the tests, and control insects and disease.

Each class has certain duties in the greenhouse. Ninth grade students work in groups of three, with each group taking care of a growing bench. In addition to other work in the program, the tenth grade students take care of the landscaping plants. Eleventh and twelfth grade students work in the area of floriculture.

In addition to selling to individuals, they sell wholesale to three local firms. The student's had great success with their azalea plants. They forced their plants to bloom before the regular azalea season and had just about sold them all by Easter.

"One of our specialties is cacti," reports Mr. Trammell. "We have dozens of varieties and find more all the time." Other unusual plants grown by the Whitfield County students include African violets, banana, orange, lemon, and rubber trees, and Rock Island pines, a tropical plant. They also have 27 different varieties of holly, which the students can identify. *(Eleanor Gilmer)*

WISCONSIN—The FFA chapter in Waupaca, Wisconsin, wanted to go to the National FFA Convention, but was short on cash. They also needed permission to go.

Plans took shape when a member of the County Fair Board asked Advisor Larson if the FFA chapter would be interested in the unexciting, but necessary task of manure disposal in the barns during and after the county fair.

Members accepted the job and everyone who was asked to help said yes. Several tractors and spreaders were supplied from members and left throughout the fair. The members recruited their own help. Several other supporters also volunteered to work—the county agricultural agent, a member of the school board, the advisor and his young son, and several boys who were not FFA members.

The result of this endeavor was $200 for the chapter treasury, plus permission to attend the Convention. As one of the school board members put it, "If they're willing to do that much to go, we should be glad to let them." *(Charles Larson, Advisor)*

SOUTH DAKOTA, WASHINGTON—An exchange program was started this year between the Letcher, South Dakota, FFA Chapter and the Battleground, Washington, Chapter. The purpose of the program was to exchange ideas of agricultural life throughout the two states.

The exchange student from Battleground was Henry Stoker. David Van Overschelde was the Letcher exchangee.

David, who is newly elected vice president of the South Dakota Association, spent his two weeks at various Battleground FFA members' farms.

Henry Stoker will be a senior at Battleground High School during the 1969-70 school term. He holds the office of sentinel in his FFA chapter. His school has about 1,800 students compared to 75 students in Letcher High School and the Battleground FFA has 186 members while Letcher has 42.

Both chapters kept the exchangees

FFA IN ACTION

busy with special events and plenty of time to learn more about the state they were visiting. The variation in farming methods was particularly interesting.

The two chapters hope to exchange members again next summer and future plans are to branch out to other chapters. The chapters financed transportation costs. Battleground FFA got their money from beef cattle and garden seed sales. Letcher sells citrus fruit and has a corn plot. *(Dennis Kingsbury, Letcher Reporter)*

CALIFORNIA—The Grace M. Davis Chapter, Modesto, held two walnut pickup days after school to help finance their delegates' trip to the National Convention. A contest was held between the members to see who could harvest the most walnuts. The winning upper classman team was Ken Huff and Dale Johnson with 175 buckets in two hours, while the freshmen winners were John Caldwell and Randy Sewell. The winners received a free ticket to the Senior Cow Palace Show. *(Frank Bavarro, Reporter)*

MINNESOTA—The Northfield FFA Chapter volunteered its services in a program of team teaching an agriculture unit to first graders within the school system.

Last year FFA President Francis Malecha and Secretary Darrell Hutton assisted in a pilot program, working with one first grade teacher, Miss Kruger. The FFA members' ability to explain and share farm experiences and subject matter strengthened the unit in agriculture. Following an appraisal of the first year, Miss Kruger and Mr. Forsline, vo-ag instructor, decided to continue the program.

This year Chapter Vice President Darrell Hutton, Secretary Lowell Miller, and President Gene Sanford assisted three first grade teachers by conducting demonstrations, teaching, and directing a farm tour at the end of the unit.

Letters were received from the first graders and the teachers and administrators in appreciation to the FFA members. Members wear official dress and do take five minutes at the close of the unit to explain the meaning of the emblem on the FFA jacket.

This idea of team teaching was submitted by the Northfield Chapter at the 1969 State FFA Convention. They received a special Chapter Innovation Award Certificate with a gold seal. *(C. R. Forsline, Advisor)*

TEXAS—Preparing to assume an FFA leadership position is a big job at local or state level. Here's a rundown on what the Texas FFA officers went through to prepare themselves for their year in office.

All ten officers were on hand for the annual training school at Buchanan Dam.

Past president Bill Sarpalius discussed responsibilities of the officers to vo-ag teachers and FFA members.

Businessmen and state vo-ag supervisors were called in to lead discussions of other topics such as how to meet and greet people, how to appear before audiences, radio and television publicity, and administration of FFA at state and national levels.

Public speaking gets plenty of emphasis before the three-day session ends. Each officer presented an impromptu greeting and a seven to ten minute speech. Constructive criticism was offered to strengthen each officer's ability in public speaking for FFA.

The officers heard statistical information on various agricultural enterprises in Texas.

The 1969-70 Texas officer team also discussed their plans for participation at the major livestock shows in Texas and their Children's Barnyard and ideas for successful chapter visitations.

Good food, the pleasure of getting better acquainted, and responsibility for various housekeeping duties were important extras of the training school. *(G. G. Scroggins, Executive Secretary)*

IOWA—The Iowa Falls FFA Chapter has formed an FFA Quality Pork Cooperative affiliated with and a subsidiary of the Iowa Falls Farmers Cooperative Elevator Company.

The junior cooperative received a loan from the Cooperative Elevator Company to purchase twelve crossbred gilts and one Chester White boar. Bred gilts are leased to members on a gilt chain contract. One pig is selected from each litter to make payments on the loan. Breeding fees for the boar and a one dollar membership cover expenses.

The FFA cooperative has elected five to the board of directors. The gilts have been carefully selected so they will improve members' productive swine enterprises. The board of directors selects members who will receive these gilts on the basis of their application. *(Dale Mohling, Advisor)*

CALIFORNIA—Young farmers in Guatemala will be able to increase their agricultural production during the next few years with new tools provided by California Future Farmers. In January 1969, Robert McColaugh, a California agriculture teacher doing AID service in rural Guatemala, challenged California Future Farmers to help develop agriculture for the farmers there.

To get the total picture of agriculture in Guatemala, the Madera Chapter sent one of its FFA members to visit there. His report on conditions there helped to point the direction for FFA cooperation.

It was decided that the most immediate help that could be given was to assist Guatemalan farmers to acquire farm tools. With this thought in mind, Future Farmers in California decided to purchase packages of hand tools to be distributed by Mr. McColaugh to the most needy farmers. FFA chapters in California purchased 200 packages of tools.

To show their appreciation for these tools, Mr. Hector Castillo, the Mobile School Coordinator for the Guatemalan Ministry of Agriculture, attended the California Agriculture Teachers Convention and reported on the great value of the FFA contribution. *(Jerry Davis, Executive Secretary)*

Over 96 chapters helped buy hand tool packets through CARE for the project.

Sporting Wild Turkey

By Russell Tinsley

It's real excitement and challenging, too.

THERE are many hunters who'd rather bag a wily, wild turkey gobbler than they would a deer —and for good reason. It's more of a challenge. The odds of a hunter killing a deer are about 15 times better than bringing home a turkey.

One reason, of course, is that the deer is more plentiful and widespread. But availability is only part of the story. A mature turkey tom is more woods wise, craftier, and less likely to make a mistake that will make it vulnerable to the hunter. I make this statement from experience, having hunted both deer and wild turkeys extensively. Personally, I think a wily, old gobbler is the smartest critter in the woods.

But, bringing home the turkey, to rephrase an old saying, certainly isn't impossible. Thousands of the big birds are killed by hunters each year. It's only more difficult than general run-of-the-mill hunting, which is what I like about it. Bagging a long-bearded gobbler is the ultimate of hunting thrills and challenges.

Actually, the turkey hunter of today has a better chance of killing a gobbler than ever before. Turkey numbers are increasing with each passing year, and thanks to man, they have greatly expanded their range.

Only slightly more than 20 years ago, in 1948, the estimated turkey population of the entire United States was 129,000. Many people were predicting the majestic birds were doomed to extinction. But modern wildlife management practices such as habitat improvement, disease control, protection, and the relocation of breeding stock has brought the population up to an estimated three-quarters of a million and it continues to grow. The comeback of the wild turkey certainly is one of the most satisfying success stories of modern conservation.

The time to hunt turkey is in the spring, if you get the opportunity. Some states have fall-only turkey hunting, but many have seasons both in spring and autumn. Fact is, spring hunting for turkeys is becoming more widespread in popularity with each passing year.

Spring hunting has sort of become synonymous with calling turkeys, but this certainly isn't the *only* way of duping a gobbler. I know one successful spring hunter who doesn't even own a call, much less know how to use one of the gadgets. He either locates a roost and waits in ambush to see a gobbler either going into or leaving the roosting area, or he prowls through the woods until he hears a tom gobbling, then attempts to stalk the bird.

But of all the methods, calling probably is the most fascinating and challenging. There's something about the way a strutting gobbler answers a call that no other hunting thrill can match. Hidden in the woods, the caller imitates the yelp of a lovesick hen to lure the gobbler within gunshot range. Using the call sparingly so the gobbler won't become suspicious and spook, the hunter plays the game of wits until he eventually brings the gobbler close or the big bird detects some danger signal which sends him scrambling for safety.

There are many different models of commercial calls, available at most sporting goods stores, and the type you choose is purely personal preference. Have a sporting goods dealer show you the various models and try each one and buy the one you feel is easiest to use and the one that more accurately imitates a turkey yelp. The cedar box type, where a slate striker is rubbed along one edge to create a yelp, probably is the most popular, but the easiest to master, perhaps, is the cedar box with the hinged paddle for a lid. This type call also can be shaken to create a fake gobble which sounds as if one gobbler is challenging another one to a fight over the affections of a hen. Another type call is made from the wing bone of a turkey and it is mouth actuated. Many experienced callers use the diaphragm-type mouth yelper.

Learning to use a call so you can outwit a wily gobbler requires some practice. Instruction phonograph records with the different calls are advertised in leading outdoor publications which can be imitated. Another possibility is to get an experienced turkey caller to teach you the technique.

A favorite of mine is to get in the woods a couple of weeks prior to the spring season and actually listen to the turkeys talk. The spring seasons are set after the normal breeding season when the hens already are on the nest, but the gobblers still are feeling their oats and are prancing about and letting the hens know they're still available if needed. For a week or two prior to the spring season the gobblers and hens will be gabbling and really carrying on. You can listen to these mating turkeys and find exactly what sounds you'll need to imitate.

But using the call is just one phase of spring hunting. First you must locate turkeys to hunt. Check with the respective game and fish departments of the

(Continued on Page 33)

"Maybe he had heart trouble!"

Standing Rules

By Dr. Jarrell Gray

IT sure takes a lot of rules to make this old world tick! Each day we face rules for this and rules for that. If we are playing baseball, there are rules for the pitcher, rules for the catcher, and even rules for the coaches. The same is true in football or most any game we play.

In the FFA chapter there are many kinds of rules. These consist of the constitution, by-laws, rules of order, and standing rules. Of these rules, the standing rules are probably dealt with more frequently since they usually pertain to the day-to-day operation of the chapter.

Standing rules are those rules of the chapter that may be adopted at any meeting without the need of giving previous notice. These rules require a majority vote to be adopted. Such rules may pertain to the time for starting FFA meetings, place where meetings are to be held, penalty for being late to a meeting, chapter program of work, and spending of chapter funds.

Sometimes it is desired to alter or rescind standing rules. If previous notice of this intention has been given, only a majority vote is required to alter or rescind them. If a previous notice was not given, a two-thirds vote is required.

Frequently it is desirable to suspend standing rules to permit the chapter to do something that could not otherwise be done. This suspension may be done by passing a motion to that effect.

The motion to suspend standing rules may be offered prior to the item of business to which it pertains, or it may be offered while the question is pending. For example, if it is desired to introduce an item of business which would be in violation of a standing rule, the rule may first be suspended, then the item of business introduced.

It is also proper to first introduce the item of business and while it is opened for discussion, move to suspend the rule involved. After this is passed, proceed with the disposal of the main motion.

The suspension of a rule is in effect only for the reason for which it was suspended. Following the action taken under the suspension, the original rule is again in effect.

It is not in order to suspend rules relating to a constitution and by-laws. Neither is it in order to suspend rules dealing with fundamental principles of parliamentary law.

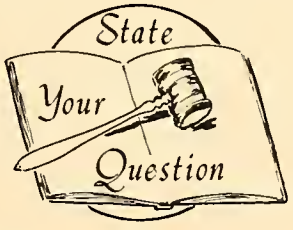
The procedure for suspending a standing rule might be done as follows:

Member: (After obtaining the floor) "Our chapter has a standing rule prohibiting the spending of chapter funds for advertising in local papers. Since it might be desirable to do this, I move that we suspend this rule."

Member: "Mr. President, I second the motion."

President: "It has been moved and seconded that we suspend the standing rule prohibiting the spending of chapter funds for advertising in local papers. This motion is undebatable, unamendable, and requires a majority vote. Those supporting the motion, please rise. Those opposed please rise. The vote is 35 for and 11 against, therefore the motion carries and the rule is suspended." (The desired proposal may be presented at this point and disposed in the ordinary manner.)

Yes, we may become confused at times with so many rules that affect us. However, without rules to give us direction mass confusion would result—whether it be an FFA chapter or a baseball team.



Hannah-Pamplico, South Carolina

Q. When there is a motion, an amendment and an amendment to the amendment before the chapter, is it necessary to debate the original motion if the amendment as amended is lost?

A. It is necessary to open the original motion for debate even though the amendment as amended is lost.

Do you have a question on parliamentary procedure? If so, you can get a direct reply from Dr. Gray, and your question may be selected for use in this column.

Answers are based upon "Parliamentary Guide for FFA" by Dr. Jarrell D. Gray. For direct replies, send your question to Parliamentary Procedure, The National FUTURE FARMER, Box 15130, Alexandria, Virginia 22309. Enclose a self-addressed, stamped envelope.

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D. Free distribution by mail, carrier, or other means	6,682	6,176
E. Total distribution	473,204	477,025
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SPORTRAIT

By Stan Allen

THE physical requirements for a professional football quarterback are being changed. Pro scouts are now combing the college rosters for players that are 6-feet 4-inches tall and weigh around 210 pounds. Roman Gabriel, eight year veteran of the Los Angeles Rams, has been one of the models for the new standards.

Gabriel led the Rams to 11 straight wins and a divisional title this past season, bringing them from behind in six games. Only six other teams have won as many consecutive games in the NFL's 50 years. Gabe's height enables him to throw over today's huge defensive linemen that can stretch up to 12-foot heights. His weight helps absorb some of the punishment of being hit by a 265-pound tackle.

Roman is a fine complete quarterback now and a proven winner as he has led the Rams to 35 wins in 42 games over the last three years. His personal record in each of those three years was just about equal, but he is just now getting the press coverage due him this year.

Gabriel has been a winner since he started for New Hanover High School in Wilmington, North Carolina. A natural athlete, he won the conference Most Valuable Player honors in baseball, football, and basketball. He had many football and basketball scholarship offers and finally picked North Carolina State University for their engineering school. Roman earned All America honors with a fine collegiate career at NC State. As a Sophomore he topped the nation's leading quarterbacks with a 60.4 percent completion record. He completed 286 of 506 passes gaining 2,951 yards and 19 touchdowns playing with mediocre teams. He was named to the College All Star team, the East-West game, and to the All Star team in the Hula Bowl. Gabe was the number one draft pick in the 1962 NFL player draft and picked by the Rams.

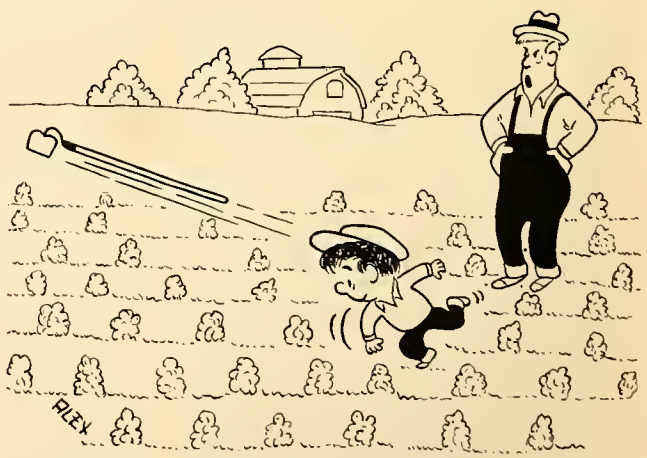
Gabriel reported to the Rams in 1962 to be an understudy for veteran Zeke Bratkowski and did not see much action. He was a part-timer again in 1963 until the Rams lost their fifth straight game. Gabe went in to rally the Rams to five wins in the last nine games. He completed 130 of 281 passes for 1947 yards and eight touchdowns. It was back to the bench in 1964 and through most of 1965. Roman got his chance in the tenth game when Bill Munson suffered a knee injury. Gabe got the Rams back on the winning track with three wins in the last four games and has been the regular starter since then.

George Allen was named coach of the Rams in 1966, and he thought Gabriel was the quarterback he needed. Gabe proved him right as he led the Rams to a winning season with eight wins against six losses. Then, in 1967 the Rams won 11 games, tied two, lost only one game, and won the Coastal Division Championship. Gabe started all 14 games and connected on 196 of 371 passes for 2,779 yards and 25 touchdowns. He came close to duplicating that record in 1968, and the Rams won ten games, tied one, and lost three. Roman was named to the NFL All Star team for the second year in a row and led the West team to a 10-7 Pro Bowl win. He was voted the Most Valuable Player in that game.

Gabriel had a fine year this season with 217 completions in 399 tries for 2,549 yards and 24 touchdowns. His longest pass covered 93 yards. His most amazing record is that only seven of the 399 passes were intercepted. He owns the NFL record for lifetime percentage of passes intercepted at 3.3 percent. Roman throws the ball so hard that his teammates have trouble catching it and defensive backs find it almost impossible. He placed fourth on the NFL passing list this year and may never place on top. Gabe is a team player and would rather throw the ball away for an incompletion than take a loss and put the team in a hole. This doesn't help his personal record. He is so strong that defensive linemen don't throw him for a loss too often and many times he gets off a pass with a big tackle hanging on his arm. Gabe is a good runner and will tuck the ball under his arm and run when chased out of the pocket. His rushing record at the end of the 1968 season showed 822 yards gained on 220 runs, a 3.7 yard average, and he has scored 19 touchdowns running. Gabriel will be the starting quarterback for the West team in the 1970 Pro Bowl game.

Roman Gabriel, quarterback, Los Angeles Rams.

Roman Gabriel has completed 1,149 of the 2,231 passes that gained 15,406 yards and 109 touchdowns in his eight years in the pro ranks. He is 29 years old now and should add many marks to the NFL record book and take the Rams all the way to a league championship.



"Would you mind training for the Olympics after you get this patch done?"

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Sporting Wild Turkey

(Continued from Page 30)

state where you intend to hunt and find the areas with the highest turkey populations. Get into the woods at least once prior to the season opening and pinpoint the general locale where turkeys roam.

There are a couple of ways of accomplishing this. One is to search for signs. The wild turkey is a scratching bird and it leaves many telltale signs where it has been feeding, digging to find various nuts, weed seeds, and insects. Another method is to listen for yelping hens and gobbling toms just before the season opens.

Once you commence hunting, get into the woods before daybreak and prowl the ridges where you can hear gobblers sounding off. Should you pinpoint a tom, move in that direction quietly, getting as close as possible, and conceal yourself. A gobbler depends primarily on his fantastic eyesight to detect danger and camouflage-colored clothing can help blend you into the surroundings. I even use a camouflage mesh headnet to cover my face. Then go to work on the call.

The best weapon for spring turkey is a shotgun. I prefer a 12 gauge, full choke, loaded with No. 4 Magnum shotshells. Always aim at the gobbler's head rather than his body for quicker and surer kills.

If all this sounds sort of complicated and difficult, it is meant to be. Turkey hunting is not easy. But it is challenging and exciting, and that's a hard combination to beat.

"Aren't you the kid that kept throwing snowballs at me last winter?"

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The Oklahoma farmer had been taken-in so many times by the local car dealer that when the dealer wanted to buy a cow, the farmer priced it to him like this:

Basic cow	$200
Two-tone exterior	45
Extra stomach	75
Product storage compartment	60
Dispensing device, four spigots, $10 each	40
Genuine cowhide upholstery	125
Dual horns	15
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Total	$595

Tim Denomme
Ipswich, South Dakota

Longhaired youth to barber: *"When I leave here I don't want anyone to know I've had a haircut except you and me, and I want us to wonder."*

Richard Lipe
Van Buren, Arkansas

A new teacher took over her class. *"What's your name?"* she asked one little boy.

"Jule," he said.

"Not Jule. Nicknames are not allowed. Your name is Julius." She turned to the next boy. *"What's your name?"*

"Billious," came the reply.

William Kucera
Cadott, Wisconsin

Boy: *"Why do you wear your dress so short? So it will make you look shorter?"*

Girl: *"No, so the boys will look longer."*

Harold Bradfield, Jr.
Campbell, Missouri

Question: Who was Snow White's brother?

Answer: Egg White. Get the yolk?

Perry James Taylor
Five Points, Alabama

Charlie, the Greenhand

"But the cows didn't mind when I added your picture."

They walked in the lane together,
The sky was covered with stars;
They reached the gate in silence,
He lifted up the bars.
She neither smiled nor thanked him,
Because she knew not how,
For he was just a farmer's boy
And she a Jersey cow.

Dale Knutson
Centerville, South Dakota

Patient: *"Is kleptomania catching?"*
Doctor: *"No, it's taking."*

Larry Dilger
Dale, Indiana

"With a car like that, my advice is to keep it moving," said the mechanic.

"Why?" asked the owner.

"If you ever stop, the cop will think it's an accident."

Mary Zink
Logan, Kansas

Newsboy: *"Extra! Extra! Read all about it! Two men swindled!"*

Man: *"Give me one of those papers. Say, there's nothing about two men swindled!"*

Newsboy: *"Extra! Extra! Read all about it! Three men swindled!"*

Brenda Reger
Breckenridge, Texas

Question: Why does Santa Claus have a garden?

Answer: So he can ho! ho! ho!

Jesse Hayes
Champlain, Virginia

Burglar: *"The police are coming. Quick, jump out of the window!"*

Accomplice: *"But, we're on the thirteenth floor!"*

Burglar: *"Do as I say. This is no time to be superstitious."*

Marie Eastling
Ravenna, Michigan

The hometown football team was having a bad afternoon. Everything they tried went wrong. The captain looked to the sidelines for aid. *"What'll we do?"* he signaled to the coach.

The coach immediately signaled back, *"Try fumbling."*

Darrell Bremer
Fort Shaw, Montana

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BOOT STYLE: 239-R-3, German Calf vamps in Gold Label finish. **PHOTOS:** upper left to lower right; Chuck Parkison, Dean Oliver, Wilbur Plaugher, Kay Vamvoras, Bull Riding action, Rex Allen, Charlie Walker, Chuck Wagon races.

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